

A PRINCETON UNIVERSITY PRESS **E-BOOK**

Philosophy before the Greeks

The Pursuit of Truth in

Ancient Babylonia

MARC VAN DE MIEROOP



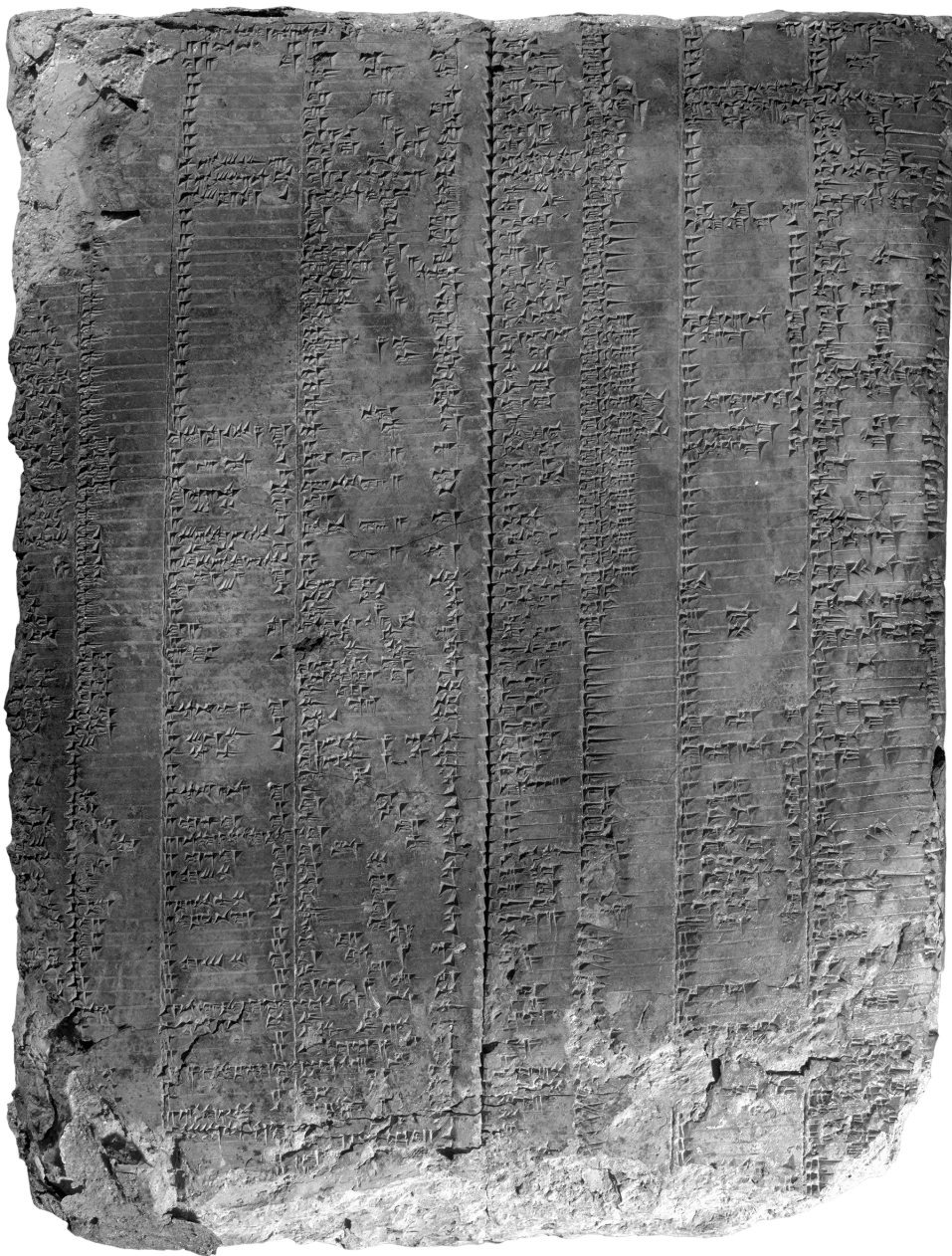
PRINCETON

VISIT...

LANZAROTE
Caliente.COM

Philosophy before the Greeks





FRONTISPIECE. Typical example of a scholarly list from the first millennium. This manuscript contains, in two columns, the text of the first tablet of a syllabary list called Ea. Each entry consists of these elements: a vertical wedge to indicate a new entry; a syllabic rendering of the sign; the Sumerian word sign; the sign name; and an Akkadian translation. Oftentimes the scribe just recorded ditto (𐎶𐎶) when a piece of information was repeated in successive lines. 21.3 cm high. YBC 2176, Yale Babylonian Collection.

Philosophy before the Greeks



THE PURSUIT OF TRUTH IN
ANCIENT BABYLONIA

Marc Van De Mieroop

PRINCETON UNIVERSITY PRESS
PRINCETON AND OXFORD

Copyright © 2016 by Princeton University Press
Published by Princeton University Press, 41 William Street,
Princeton, New Jersey 08540
In the United Kingdom: Princeton University Press, 6 Oxford Street,
Woodstock, Oxfordshire OX20 1TW

press.princeton.edu

All Rights Reserved

Library of Congress Cataloging-in-Publication Data

Van De Mieroop, Marc.

Philosophy before the Greeks : the pursuit of truth in ancient

Babylonia / Marc Van De Mieroop.

pages cm

Includes bibliographical references and index.

ISBN 978-0-691-15718-4 (hardcover : alk. paper)

1. Philosophy, Babylonian. 2. Knowledge, Theory
of—Iraq—Babylonia. I. Title.

B146.V36 2015

181'.6—dc23

2015017273

British Library Cataloging-in-Publication Data is available

This book has been composed in Charis SIL

Printed on acid-free paper. ∞

Printed in the United States of America

1 3 5 7 9 10 8 6 4 2

Contents

Preface vii

PART I

AN ESSAY IN BABYLONIAN EPISTEMOLOGY

CHAPTER 1: At the Time of Creation 3

PART II

THE ORDER OF THINGS (*LES MOTS ET LES CHOSES*)

CHAPTER 2: Word Lists: A Very Short History 35

CHAPTER 3: Constructing Reality 59

PART III

WRITINGS OF THE GODS

CHAPTER 4: Omen Lists in Babylonian Culture 87

CHAPTER 5: The Structure of Knowledge of the Universe 113

PART IV

THE WORD OF THE LAW

CHAPTER 6: Of Ancient Codes 143

CHAPTER 7: The Philosopher-King 156

PART V

A BABYLONIAN EPISTEMOLOGY

CHAPTER 8: Babylonian Epistemology in History 185

CHAPTER 9: The Conceptual Autonomy of
Babylonian Epistemology 216

Notes 225

Bibliography 257

Index 291

Preface

“For you will have the wisdom not to think you know that which you do not know.” Socrates spoke these words at the end of Plato’s *Theaetetus*, the dialogue that is often proclaimed to be the first major treatment of the problem of knowledge in history. Certainly Socrates was not the first human to wonder how we can determine what is true and what is not—he spent most of the dialogue disproving what earlier Greeks had suggested. Long before the Classical Greeks, however, other people too must have asked the question what true knowledge was. To assume that they merely observed the obvious and accepted it as inexplicable fact is culturally prejudiced. This book will investigate how the ancient Babylonians approached the issue, at least those who were literate. They left behind a monumental textual record that stretches in time from before 3000 BC to the first century AD. It contains no systematic explanations of the Socratic type, but shows the rules of critical analysis in practice in thousands of manuscripts that contain anything from a couple of lines of text to hundreds of them. The documentation is massive and can be hard to appreciate, because we have to recreate the methods of inquiry the writers employed through practice rather than theory. But its analysis shows that strict logical rules governed its procedures. To make this clear, I will look at three corpora of texts, two of them large in size, the third much more restricted. Encompassing three areas of scholarly inquiry—the study of language, of divinatory signs, and of the law—they display the same basic ground rules.

The system of reasoning the Babylonians followed was very unlike the Greek one, and thus that of western philosophy built upon the Greek achievements. It was rooted in the cuneiform writing system, which was not an alphabet and was much richer in its use of signs than that kind of script. Few people today understand Babylonian writing, and I will need to explain some of its basic principles, which may put off the uninitiated at the same time that it may sound banal to those who know it. I hope that it will become clear, however, that as a writ-

ing system it was as capable to render ideas as the alphabet is, and that for thousands of years people throughout the ancient Near East expressed complex thoughts using it. This study will show a remarkable consistency of Babylonian practices over three millennia, maintained by numerous scholars who elaborated their research within a shared tradition—one that had a lifespan comparable in length to the Greek-based western philosophy still in use today. We cannot dismiss the Babylonian approach to knowledge as a mere curiosity of long-gone days. For many centuries it determined how intellectuals reasoned; in fact, it is the only well-documented system of philosophy before the Greeks known to us. And while it was the dominant paradigm in the literate part of the world for a large part of its early history, I will try to show that the Babylonian approach has resonances today and that its study is not purely a matter of antiquarianism.

Writing a book is always a long process and requires the support of others. A number of organizations gave me the time and intellectual space to work on it, especially the Internationales Forschungszentrum Kulturwissenschaften (IFK) in Vienna, Austria, and the Guggenheim Foundation in the United States. I tested out some of the ideas expressed here in lectures at SOAS in London, Wolfson College Oxford, Università Ca' Foscari Venice, the Metropolitan Museum of Art in New York, the Centre for Canon and Identity Formation at the University of Copenhagen, IFK in Vienna, the Center for the Ancient Mediterranean at Columbia University, at Johns Hopkins University, and at the University of Ghent. I thank those who invited me to speak and those who made comments. I benefited from conversations with many colleagues and friends, who knowingly or not gave me useful information and forced me to clarify matters in my own mind. I refrain from attempting to make a list, so as not to omit some inadvertently—all deserve my sincerest thanks.

PART I



AN ESSAY IN BABYLONIAN EPISTEMOLOGY

CHAPTER 1

At the Time of Creation

I Read, Therefore I Am

When the Greek historian Diodorus of Sicily wrote his *Library of History* in the first century BC—a universal history in the sense that he mentioned Egyptians and other “barbarians” briefly before embarking on a detailed account of Greeks and Romans from the Trojan War until his own time—he made only a few remarks about the Chaldeans, who were, he said, the most ancient inhabitants of Babylonia. Unlike the Assyrians and Medes he had just discussed, Diodorus found the Chaldeans interesting not because of their military feats, but because, “being assigned to the service of the gods, they spend their entire life philosophizing, their greatest renown being in the field of astrology” (Diodorus II 29.2). Many modern translators of this passage avoid the term “philosophize” and prefer the broader word “study,” but the original Greek is precise. The text uses the verb *filosofeo*, to love knowledge and pursue it. Diodorus did not, then, share the modern reluctance to grant those outside the western tradition the ability to practice philosophy. Hegel’s notorious dismissal of non-European thought in his *Philosophy of History*—China’s philosophy was alien to anything that relates to the Spirit and India’s was dream-like—may no longer be universally shared, and the concept of world philosophies may now finally be breaking the Eurocentric barrier.¹ Still, rare are the students of philosophy who consider the Near Eastern traditions that dominated the eastern Mediterranean world for millennia before the Classical Greeks. I say rare because there is an increasing awareness of a Near Eastern background to ancient Greek culture, including its philosophy, in which the clearest traces of such influence appear in the pre-Socratic corpus. A recent authoritative handbook on that corpus, for example, includes an essay that points out how ideas from the East inspired early Greek thought.²

The focus of the essay is fully on content, not on form, as especially in the area of cosmogony it is clear that Hesiod and others knew of earlier Near Eastern traditions. Egyptians, Babylonians, Hittites, Hebrews, and some of their neighbors left behind engaging works of literature that illustrate their perceptions on how everything came into being. The ideas were very diverse even within the individual cultures, but undoubtedly elements from them reached the Greek world. The parallels between Hesiod's *Theogony* and the Hittite *Kumarbi Cycle* are so obvious that few would deny that the Greek author was aware of the Anatolian tradition.³

A closer look at the most elaborate discussion of cosmogony from the Near East shows that we deny it full credit by focusing on such details of content alone, however. The *Babylonian Creation Myth*—a modern title for a poem known in Mesopotamian antiquity as *Enūma eliš*, its first two words—relates how the universe evolved from nothingness to an organized structure with the city of Babylon at its center. When the primordial sweet and salt waters—male Apsu and female Tiamat—mingled, two beings appeared: Laḫmu and Laḫamu, that is, mud and muddy. The image suits the southern Babylonian view over the Persian Gulf perfectly: when the sea recedes, mud arises.⁴ A chain reaction had started: the male and female heavenly and earthly horizons brought about by the mud flats gave birth to the god of heaven, and in due course other gods came into being, as well as conflict between them. Soon the *prima materia* sweet water Apsu tried to destroy his offspring for the noise they made, but Ea, the god of wisdom, cast a spell on him and killed him. Henceforth Apsu was the name of the waters beneath the earth in whose midst Ea established his house. There the god's wife Damkina gave birth to Marduk, a raucous youth whose games so disturbed the *prima materia* salt water Tiamat that she too wanted to rid herself of all others. This time Marduk was the gods' champion, and the tale details how he battled Tiamat's ghouls. Victorious, he used Tiamat's body to create the heavenly sky, in which he organized the stars and the progression of time:

He made the position(s) for the great gods,
 He established (in) constellations the stars, their likeness.
 He marked the year, described (its) boundaries,
 He set up twelve months of three stars each.

Marduk brought order into the universe, assigned gods their places in heaven and the netherworld, and made the Tigris and Euphrates rivers

flow using Tiamat's eyes as the sources from which their waters arose. As his last act he created humankind, who "shall bear the gods' burden that those may rest." In gratitude the other gods elected Marduk their king and built Babylon as his resplendent residence, the place where they could gather in assembly.⁵

One could say that creation was complete at this point in the poem, and many modern summaries of the *Enūma eliš* indeed portray the subsequent lines as a liturgical praise of the god Marduk, an appendix.⁶ So far the tale revealed a wealth of ideas about creation current at least among some Babylonians. As the *Enūma eliš* was recited during the New Year's festival when the gods met to renew Marduk's kingship, we imagine that its contents had official sanction, but we cannot say that its ideas were exclusive. Some aspects are clear: water was the *prima materia*, intercourse between male and female elements led to a lineage of gods, and generational conflict caused change. In the *Enūma eliš* progress was the result of younger gods pacifying the chaos their ancestors generated. Parallels with pre-Socratic Greek ideas are obvious: Thales too regarded water as the basis of all else, and Hesiod's *Theogony* portrayed progress as the result of generational conflict and parricide.

When ending our reading of the *Enūma eliš* at this point, it is easy to conclude that the concepts it expresses are in the domain of myth rather than reason. They explain natural phenomena, such as the Tigris and Euphrates rivers or the movements of stars and planets, as the outcome of a divine act. No other rationale was needed. Read this way, the poem belongs "before philosophy," as in the title of a popular book from the 1940s that studied "the intellectual adventure of ancient man" through the mythologies of Egypt and Mesopotamia. The collection of essays—admirable in many respects and naturally a product of its time, the mid-twentieth century—discusses at length mythopoeic thought, speculation that "was not restricted by a scientific (that is, a disciplined) search for truth."⁷ And indeed these ancient peoples did not present a systematic analysis of the origins of the universe and its structure that uses the principles we today see as essential for scientific explanation. Nor did they analyze other topics with the methods Greeks started to develop so thoroughly in the sixth century BC and which we see as foundational for western rationality. If we read *Enūma eliš* purely as a myth, we may be tempted to dismiss it as unworthy of serious attention, following Hegel's paraphrase of Aristotle, "It is not worth while to treat seriously of those whose philosophy takes a mythical form."⁸ Yet,

Before Philosophy and many other engagements with Near Eastern writings present a very partial analysis of the materials available. Such an approach would be as if we only consider Hesiod and forget about Thales and other early Greek philosophers. A reading to the end of the *Enūma eliš*, the cosmogonic poem from Babylonia, the ancient culture that will preoccupy the rest of my discussion, reveals a much different system of thought.

Before we consider the rest of the poem, we need to make a short excursus to explain the basic principles of the writing system the author used. The cuneiform script was one of the longest in use in world history, for more than three thousand years, and an unknown number of people, at times from all over the Near East, recorded a multitude of languages with it. It was not alphabetic, but used several hundreds of signs to indicate both entire words and single syllables. Opaque to those unfamiliar with it, the principles are straightforward and easy to learn. My remarks here are commonplace to those who have studied it, but will, I hope, clarify the basics to those who have not.

The cuneiform script was probably invented to render the Sumerian language—specialists debate the issue—and its connection to that language was essential. At first each sign denoted an entire word, regularly with a connection between the visual representation and the item recorded: the outlines of a river for water (Sumerian a), the ox-head for an ox (Sumerian gud), and so on. Through simple logic the pictures of physical objects were used to depict conceptually related verbs and abstract ideas. The foot indicated “to walk” (Sumerian du) and “to stand firm” (Sumerian gin). Homophony between the words for physical and nonphysical items allowed for the depiction of the latter. Sumerian til, “to live,” sounded like ti, “arrow,” so the drawing of a bow and arrow indicated the verb. The dominance of words made up of single syllables in the Sumerian language made it easy to use word-signs (or logograms) as the building blocks of longer words and grammatical chains, where they lost their connection to concepts and represented sound. In the development of syllabic meanings, consonants were more stable than vowels, but b could easily become p, g could become k, and so on. The ability to render syllables was crucial for the adoption of cuneiform to write the Akkadian language, with its multisyllabic words, and at the same time, the connection to this other language added new potential readings to individual signs. With this increased flexibility users of the script could write down texts in any language whatever its linguistic background: Semitic Akkadian, Indo-European Hittite, and a

mixture of others without clear cognates, such as Sumerian, Hurrian, and Elamite. Throughout its history, scholars of the cuneiform script expanded the possible readings and meanings of signs, as we will see in detail in the next chapters.

A student of cuneiform writing is at first thrown off by a number of characteristics that were essential to the script's flexibility. They are rooted in the bilingualism that was essential to Babylonian literate culture, which treated Sumerian and Akkadian as parallel languages that worked in harmony, a topic I will address in more detail in the next section. Although Sumerian and Akkadian were linguistically very distinct, the Babylonians considered the languages to be inherently tied together and even to be interchangeable. Words in either language could substitute for one another, and, as is true for all translations, various Akkadian equivalents existed for every Sumerian word, and vice versa. Moreover, because the readings of signs as syllables derived from their connections to different Sumerian and Akkadian words, they had multiple phonetic renderings. A single sign could be read as *du*, *de*, *gin*, *kin*, *gub*, *ra*, *re*, or *tum*. Conversely, the same syllable or word could be written with various signs (modern scholars assign them numbers, e.g., *du*, *du*₂, *du*₃, etc.). Thus there existed a large variety of potential readings and interpretations of every word and cuneiform sign. While all this seems confusing on the level of the individual signs, when they were read in a sequence the correct reading was obvious to anyone who knew the language, certainly when practical writing was involved. The multiplicity also allowed for intricate explanations of the various options, however, and this is what the author of the *Enūma eliš* used in order to give additional meaning to the text.

When the poet reached the point where Marduk had completed his work and the other gods made him king, he (although women belonged to the literate elites of Babylonia, the chances that a woman wrote the *Enūma eliš* are very small⁹) had written some 900 verses, which in the standard version of the first millennium filled most of six cuneiform tablets. He did not end hastily, however, but devoted another 200 lines to a passage in which the gods recite fifty names of Marduk, explaining what each one means. These present a work of explanatory philology so complex that later Mesopotamian commentators provided clarifications in order to show how the analyses came about. While the later scholars did not necessarily disclose the original author's intent, they shared with him the same approach to reading the cuneiform signs and establishing what they reveal about reality. Most modern scholars paid

little attention to the passage—they called it a solemn recitation of names—until Jean Bottéro unlocked its structure and showed its importance in 1977.¹⁰ One example suffices to make the point. Marduk's thirty-sixth name is

LUGALABDUBUR

The king who thwarted the maneuvers of Tiamat
uprooted her weapons
whose support was firm in front and rear.¹¹

In order to interpret the name ^dLUGAL.AB₂.DU₁₀.BUR₃ as explained in the subsequent three verses, the author established multiple equivalences for each of the five signs used to write it, as the ancient commentary text explains. He relied on the basic characteristics of cuneiform writing I just explained, and used them to the fullest extent possible. The information the later commentary provides allows us to interpret the hermeneutic procedures in the passage just quoted as follows:

LUGAL = *šarru*, a common translation from Sumerian into Akkadian of the word “king.”

BUR₃ is equated to BIR₂, (which is easy because of the secondary character of vowels). Sumerian BIR₂ can be translated in Akkadian as *sapāhu*, “to scatter, thwart.”

DU₁₀ is equated to its homophone DU₃, which means “to build.” An Akkadian noun derived from that verb is *epšētu*, that is, “action, maneuvers.”

AB₂ is equated to its homophone AB, which is taken as the abbreviation of the Sumerian word A.AB.BA, whose Akkadian translation is *tāmtu*, “sea.” By extension it indicates the goddess of the sea, Tiamat.

BUR₃ is taken to be the same as its component BU, which has the Akkadian equivalent *nasāhu*, “to uproot.”

DU₁₀ is equated again to DU₃, a cuneiform sign that can also be read KAK, the first syllable of the Akkadian word *kakku*, “weapon.”

LU₂, the first part of LUGAL, is equated to the Akkadian relative pronoun, *ša*, “whose.”

DINGIR, the determinative sign at the start of the entire name used to indicate that a divine name is following (rendered ^d in the transliteration above), is equated with Akkadian *ša rēši*, “in front.”

At this point the commentary is damaged and its explanation of the final equivalences is no longer preserved, but we know the system well enough to restore at least some of it with confidence. The concluding two elements of the name $DU_{10}.BUR_3$ render the Sumerian word DUBUR, which means “foundation, support,” and perhaps the sign DU_{10} is to be equated with DU, which means “to be firm” when read GIN.

The five signs of the name ${}^dLUGAL.AB_2.DU_{10}.BUR_3$ thus make up the sentence “The king (LUGAL) who thwarted (BUR_3) the maneuvers (DU_{10}) of Tiamat (AB_2), uprooted (BUR_3) her weapons (DU_{10}), whose (LUGAL) support ($DU_{10}.BUR_3$) was firm ($DU_{10}?$) in front (d) and rear.”

The author of *Enūma eliš* and its ancient commentators were not alone in using such hermeneutic techniques to expose the meaning of a name or a term. All ancient Babylonian scholars were aware of the underlying principles and displayed remarkable skill and inventiveness in their application. These were not word games, but analyses that aimed to reveal truth. Babylonian scholars grasped reality through its written form. Their readings were thus exercises in epistemology. Using the same procedures of name analysis, Marduk was connected to agriculture, wisdom, warfare, and other areas of life—every aspect of civilization came into being at the time of creation through this naming process. The final two hundred lines of the poem were not an afterthought or a mere liturgical recitation of a god’s attributes through abstruse names. They presented the culmination of creation: everything was made according to a divine plan. That plan may not have been immediately apparent, but the poem supplied the system of analysis, the key to understanding the universe. The *Enūma eliš* was thus not simply a cosmogony; it provided a cosmology.

The ancient Babylonians certainly were not humanists but deeply committed to a theocentric view of the world. Yet, they believed that humans could have a firm knowledge of reality as the gods had created it and continued to direct it, because at the time of creation the gods had provided the tools for understanding, as the *Enūma eliš* shows. Creation in that myth was a work of organization: Marduk did not fashion the universe *ex nihilo*. Rather, he created by putting order into the chaos of Tiamat’s bodily parts. And just as he ordered the physical world, he organized knowledge and structured it through writing: the cuneiform signs that made up the names of Marduk were only meaningful because they were part of a methodical system with proper readings

and equivalences. The system was intricate, and in order to understand even a single name or a word the reader had to know the rules of interpretation in full. But access to knowledge existed, because Marduk had provided it.

The Babylonian theory of knowledge was to an extent empirical—observation was crucial. It was also fundamentally rooted in a rationality that depended on informed reading. Reality had to be read and interpreted as if it were a text. Just like Descartes, the Babylonians knew that senses can deceive and that observation alone is not enough for knowledge. They had a method of finding truth, and if they had any doubt about their own existence it was removed by the knowledge that they could read to understand. “I read, therefore I am” could be seen as the first principle of Babylonian epistemology.

One conclusion is obvious: Access to knowledge was very restricted because literacy was a rare skill, certainly at the level required for the kind of hermeneutical analysis the author of the *Enūma eliš* displayed. The rate of literacy in Babylonia is still a matter of debate, but even if businessmen and accountants had the ability to communicate in writing with a modest understanding of cuneiform as scholars now argue with good reason, they could not figure out these complex scholarly equivalences by themselves. There are levels of literacy.¹² Philosophy everywhere is an elite enterprise, not necessarily because most people lacked ability, but because they lacked training. In the several of the following chapters I will address Babylonian scribal education from a number of perspectives. One of its fundamentals was a thorough knowledge of the polysemy of cuneiform signs both at the level of their reading and their meaning. The science of reading was the basis for all understanding and was thus the foundation of Babylonian philosophy. Naturally, then, this philosophy could only survive in a culture where the Babylonian writing system was known.

So let us return to the relationship between Babylonian and Greek philosophies for a moment. It is clear that the Greeks *could not* adopt the Babylonian methods of philosophy because they did not adopt their methods of reading. They were indeed able to absorb details of Babylonian cosmogony, probably with the Anatolian Hittites and others as intermediaries who reformulated certain elements—the processes of transmission are complex and much debated—because those were matters of contents. When Hesiod recounted the generational struggles of the gods, his tales of parricide and infanticide easily bring those of the ancient Near East to mind. But Hesiod did not write a cosmology. The

subject of cosmology in Greek antiquity is too multifaceted to be addressed here, but a brief look at one expression of it shows how much it differed from the Babylonian approach. It is not important to me here whether or not its views were widely shared; my interest is in comparing the principles behind two cosmologies. In his *Timaeus* Plato treated creation at great length and provided a detailed explanation of the structure of the universe. In some ways the work reads very much like the Babylonian *Epic of Creation*, in other ways it is radically different, although ironically perhaps it relies on a very Babylonian scholarly discipline, mathematics. Plato's creator was the demiurge, the divine craftsman who brought order into primeval chaos, just as the Babylonian Marduk did in the *Enūma eliš*. Compare, for example, the Babylonian passage I quoted before to Plato's description of the origins of time:

In order that time might be created, the sun and the moon and five other heavenly bodies—the so-called planets—were created to determine and preserve the numbers of time.¹³

The demiurge's building blocks were the four elements, fire, water, air, and earth, each a perfect polyhedron made up of identical faces, and he put them together as a mathematician using the best possible combinations. Thus everything could be described and explained through proportions, number sequences, and intervals. We all know about the Greek debt to Babylonian mathematics, so Plato may have been guided here by Near Eastern concepts.

But Plato's explanation of the nature of things was essentially unlike the Babylonian one we just discussed: writing plays no role in it at all. In fact, the *Timaeus* starts with Critias's story of how an Egyptian priest chided Solon because the Greeks had no ancient written accounts (23a–b). Plato could not suggest that we analyze the universe as a written text, because his understanding of writing was fundamentally different from the Babylonian one. To him mathematical models determined the structure of the universe; it was those that provided insights. Another Socratic dialogue addressed the idea of writing as a dead end in the search for truth. In his deconstruction of theories of knowledge, *Theaetetus*, a brief passage on writing appears. Socrates claims that while syllables have meaning, our knowledge about them does not improve through the analysis of the individual letters, because those are not objects of reason.¹⁴ The Babylonians saw matters otherwise: each component of the written word contained meaning. Naturally the smallest ele-

ment was not the individual letter—such a concept did not exist in their writing—but every building block of the word could be analyzed and interpreted in order to grasp its full meaning. The fundamental difference between Greece and Babylon should not lead to the conclusion that the Babylonian approach was not philosophical or systematic. On the contrary, it was a rigorously disciplined, scientific search for truth.

Before addressing the Babylonian system in detail, which will take up the better part of this book, I want to introduce some elements that are crucial for our understanding of ancient Mesopotamia's intellectual history, and not always known to scholars outside the field of Assyriology that deals with the original source materials. The written remains from the cuneiform tradition are vast in number—a recently published estimate speaks of more than one million¹⁵—and cover numerous areas of human thought. They are rooted in a set of cultural practices that radically inform the way they express ideas, and that differ from those of other cultures, ancient and modern. I will address the following elements here: the essential Sumero-Akkadian bilingualism of Babylonian literate culture and its cosmopolitanism, the interface between the written and the oral, the author function, and the continuity of engagement with a common discourse through the more than three millennia of the cuneiform tradition. An understanding of my views on these will explain some of the approaches I take later in this work.

Twin-Tongued Babylonia

As the analysis of Marduk's names showed, the foundations of the Babylonian hermeneutic system relied on the interplay between the Sumerian and Akkadian languages. Linguistically the two were very different, the first an agglutinative language without known cognates in which lexical and grammatical change results from the merger of various fixed elements, the second a Semitic language, related to many others known, that varies the meaning of core roots through vowel change, the inclusion of prefixes, infixes, and suffixes, and other modifications. As these two languages were used in the same communities perhaps from prehistory on, they borrowed some of each other's vocabulary, and the Sumerian sentence structure influenced the Akkadian one, but the two remained clearly distinct. Still, the ancient Babylonians saw them as parallel languages that were interchangeable. In Akkadian they called them *lišān mīthurti*, literally “languages of the meeting each other.” Modern scholars disagree on whether this means they

were in harmony or in opposition,¹⁶ but all who work on this material agree that everything that was expressed in one language conceivably could be expressed in the other, however difficult the switch may have been. A first-millennium literary vignette about school life, bilingual itself, asks the student whether he knows the Akkadian equivalent, literally “mirror,” of the Sumerian language.¹⁷ And one can say that in essence writings in Babylonia always had the two languages in mind. Even when a text was fully written in Sumerian, it could be read in Akkadian as well.

Explicit bilingualism with texts rendered in both languages on the same object started in the mid-third millennium when kings from northern Babylonian Akkad issued royal inscriptions in parallel columns, Sumerian on the left, Akkadian on the right. Kings of Babylon revived the practice in the eighteenth century BC either using the same format or broadcasting corresponding texts on separate objects. At the same time a program of creating bilingual works took place, probably triggered by the disappearance of Sumerian as a spoken language. The bilingual compositions thus elaborated included lexical texts and works of literature. We will look at lexical material in more detail in chapter 2; what happened to literature is complex and little studied, and I will make some brief remarks about it here.

After the Babylonian scribes had experimented with some other formats, they settled on a standard practice in which each Sumerian verse was immediately followed by its Akkadian parallel. We call the format interlinear translation. The basis for the selection of materials for such treatment baffles us. Some Sumerian compositions preserved in numerous manuscripts, such as many of the epics, were disregarded, while other texts that seem marginal to us lived on in bilingual form. Passages in Sumerian literary works inspired parts of Akkadian tales—stories about the heroes Gilgamesh and Adapa¹⁸—but no Sumerian texts were fully translated into Akkadian to survive as independent compositions in that language. The only true exception to this rule appears in the well-known *Babylonian Epic of Gilgamesh*. In its first-millennium version the epic contains an Akkadian translation of the story we call *Gilgamesh, Enkidu, and the Netherworld*, known from a substantial number of Sumerian manuscripts of the early second millennium. Only the last 172 lines of this approximately 300-line-long poem were turned into Akkadian, however, and added as an appendix to the Babylonian text, where it had a history as an Akkadian composition detached from its Sumerian original.¹⁹ Some monolingual Akkadian texts are paraphrases

of Sumerian poems—for example, *Ishtar's Descent to the Netherworld* is an awkward abbreviation of *Inanna's Descent to the Netherworld*, so shortened that it is hard to understand on its own. But otherwise, if a Sumerian text was translated into Akkadian it only survived in a bilingual context.

It is clear that already in the eighteenth century bilingual texts were not just translations of existing Sumerian texts into Akkadian. A substantial part of literate creativity was bilingual in essence. Our use of the term “translation” suggests that all texts were originally composed in one language and then converted into the other. Probably that was not always the case: many authors wrote their texts in both languages simultaneously and considered the bilingualism to be essential. As the poet of the Sumerian epic *Enmerkar and the Lord of Aratta* wrote, the country was “twin-tongued.”²⁰ This was, of course, a literate bilingualism of the educated classes; it was an artifice of writing. In Babylonia's multilingual society the literati may have spoken several languages other than Sumerian or Akkadian at home, and the majority of the population could not comprehend the languages they used in their writing. It is not the case, as is frequently claimed in modern studies, that Akkadian reflected the vernacular, while Sumerian was the dead language of culture; both versions were purely erudite. There are many parallels to this situation in the later history of the region. Intellectual life in the Middle East has often been bilingual: Aramaic-Greek, Arabic-Persian, and Turkish-Arabic. While the origins of these various multilingual cultures differed, as did the ways in which they were articulated, they all show how literate creativity can thrive within linguistic heterogeneity.

A Babylonian Cosmopolis

The multilingual context of Babylonian culture becomes even more salient when we consider that for long periods in its history it was not restricted to one clearly defined region. My use of the term “Babylonian” requires clarification. It is not restricted by the parameters of modern scholarly practices, which are actually remarkably fluid and imprecise. Is it a language or dialect, a culture, a region, a political formation? Various usages are common, sometimes in the same publication. In current scholarship, something is considered Babylonian because it derives from the southern region of Mesopotamia, that is, the area between modern-day Baghdad and the Persian Gulf, or, when writ-

ten, because it is in the dialect of Akkadian mostly attested there, or because it originated under political regimes that unified the region, and so on. I use “Babylonian” as a purely textual form of classification. It includes, but is not limited to, the bilingual Sumerian-Akkadian literate culture produced by people with a multitude of linguistic backgrounds in the southern part of Mesopotamia for the entire duration of the existence of cuneiform script. Thus it starts prior to any political construct one can call Babylonian and before the dominance of writings in the so-called Babylonian dialect of Akkadian. Not only was this culture a product of very heterogeneous societies residing in southern Mesopotamia, but it was also what I call cosmopolitan, borrowing a term used for the study of later periods of world history.²¹ Throughout preclassical history, writings of all genres that were Babylonian in character and had a bilingual Sumerian-Akkadian background appeared outside that region. From the mid-third to the mid-first millennium a very special and close cultural relationship existed between Babylonia and Assyria to its immediate north, whose inhabitants used related yet distinct dialects of the Akkadian language in their day-to-day writings, but shared a common idiom for works of literature and royal glorification. The connections could be so close that we habitually speak of ancient Mesopotamian culture, but the distinctions between Babylonia and Assyria are often clear enough that we should be more specific. This cultural entity at many moments, especially in the third and second millennia, had a radical impact on the literate cultures of the surrounding areas, from central Anatolia to western Iran and sometimes even into Egypt. Various works of literature, lexical lists, omen texts, and other writings appeared in exact copies, excerpts and paraphrases, with or without translations, and in other formats, in the libraries of Hittites, Elamites, Syrians, and others, all people speaking and often writing multiple other languages. At times the preserved sources from these regions are far richer than those from Babylonia proper and so they are essential for our understanding of literary history. One such period was the second half of the second millennium. It was a time of crucial importance for the development of all Babylonian scholarship and literature. Yet, we have almost no sources from Babylonia then, and instead we have to turn to evidence from several cities in Anatolia and Syria to study what materials were written and in what form.

Assyriological scholarship sees this phenomenon purely in terms of a core-periphery model, in which the Babylonians were the creative minds whose works traveled abroad, to be copied and imitated with

various levels of success. I suggest we see it as an example of a cosmopolitan culture, one that was not based on an imperial enterprise like the Latin cosmopolis, or on a universalist religion like the Arabic-Islamic one. Perhaps the Sanskrit cosmopolis of the first millennium AD, which had no political or religious center, was the closest in nature, although there are clear differences with the Babylonian case as well. This aspect of ancient Near Eastern cultural history requires much more study and historicization, but the reader ought to be warned that in my surveys of lexical, divinatory, and legal writings the geographical purview will at times reach far beyond the area of Babylonia, as without doing so we cannot grasp what happened with those texts. This, of course, also has an impact on the epistemological paradigm I will study: it was not a narrow regional one but one known throughout the ancient Near East.

The Written and the Oral

Because it is located at the dawn of history, many scholars regard ancient Mesopotamian culture as steeped in an oral tradition, with writing emerging slowly as a primary means of expression. Although written texts existed from the late fourth millennium on, their scope was restricted to administration and lexicography, and only gradually other concerns acquired written expression as well: poetry, accounts of royal activity, laws, and so on. It is commonsense to these scholars that the oral form preceded the written one, the second merely recording the first. The question of orality and literacy in ancient cultures is a thorny one—E. J. Brill publishes an ongoing series devoted to the issue: *Orality and Literacy in Ancient Greece*, recently renamed *in the Ancient World*, and in its multiple volumes scholars disagree forcefully about the relative importance of oral and written traditions in Classical Antiquity. Few scholars of ancient Mesopotamia have addressed the question explicitly, but those who have done so have concluded, against standard opinion, that the oral tradition did not have primacy over the written one. Naturally poetry takes a foremost position in such discussions, which are often influenced by the ongoing debate about the creation of the Homeric epics in archaic Greece. The elements for oral creativity adduced by Homeric scholars who work in the vein of Parry and Lord—metric patterns and formulaic language—cannot be attested in Sumerian poetry or are not definitive indications of an oral background.²² Of course, it is not a question of whether all writings were either render-

ings of oral formulations or conceived in written form; some compositions could easily have been originally oral, while it is hard to imagine that others, such as the poems in which the initial and sometimes also the final signs of each verse spell out sentences vertically,²³ were not thought up by a writer. Furthermore, it is important to remember that oral practices differ in literate and nonliterate societies, as Jack Goody has shown in detail, and even in early Islamic thought the reputed authority of oral transmission cannot be considered as separate from the written tradition.²⁴ Since the argument in this book depends so much on the written form of expression, I will adduce here evidence of how the ancient Mesopotamians honored the written text as authoritative—this is not to say that there was no oral tradition as well nor that everything preserved was conceived as a written text, but to demonstrate that writing was central in the formulation of Mesopotamian thought.

To state the obvious: we only know what ancient Mesopotamians recorded in writing; there could have been a parallel oral tradition that is totally lost to us. But the Mesopotamians repeatedly stressed the value of the written source over the oral. In the subscript of a late-second-millennium manuscript of divine hymns, for example, the scribe apologized for not having access to a written source: “Written on the basis of the mouth of a scholar. I did not see an ancient copy.”²⁵ Oral recollection of such hymns existed, but it was not considered as trustworthy as written evidence. The text had greater authority because of its antiquity, which theoretically could go back to primordial times. Although very late in Babylonian history, a passage from the Hellenistic historian Berossos eloquently reflects this idea. Recounting the Flood story, this third-century BC author wrote:

Kronos (i.e., Babylonian god Ea) stood over him Xisouthros (i.e., Sumerian Ziusudra and Babylonian Utnapishtim) in his sleep and said that on the fifteenth of the month of Daisios mankind would be destroyed by a flood. He thus ordered him to bury the beginnings and middles and ends of all writings and hide them in the city of the Sun, Sippar. And after building a ship he was to embark on it with his kin and close friends.

And after the flood receded, Berossos went on to say:

So, when they went to Babylon, they dug up the writings from Sippar.²⁶

A Babylonian version of the tale appeared in the famous *Epic of Gilgamesh*, which starts off with praising the eponymous hero for bringing back wisdom from before the flood as well as writing down his adventures.²⁷ It was the written record that survived, not the oral one.

Scribes were proud of their skills. A late Babylonian bilingual text praised their art for being the inspiration both of the eloquent speaker and of the erudite scholar.²⁸ We know that “singers” who recited hymns and various other texts to the accompaniment of musical instruments were common in courts and cult centers, but we need not envision them as bards who sustained an oral tradition. The residence of a “chief singer” at Assur in the first millennium contained a rich library of manuscripts: hymns to gods, kings, and cities, prayers and rituals, as well as myths and epics.²⁹

Instruction, too, was a process of writing. Students had to struggle with what one could call a situation of “extreme diglossia”:³⁰ not only was the Babylonian they wrote distinct from what they spoke, but the basis of the education system was the linguistically entirely different Sumerian no longer current in speech. They practiced rote learning, repeatedly writing down the same excerpts. Many scholars argue that they did so following the teacher’s oral recitation, because some of the errors in their work show that they misheard him. Others assert that the students’ task was to memorize passages from lexical and literary texts and reproduce them in writing, which explains why the early parts of compositions are much better represented in their work than later ones—naturally they memorized those first—and why lapses of memory appear.³¹ But at the same time, we have ample evidence of students copying out the master’s written example. There existed a type of school tablet that contained the teacher’s model on the left side while the student had to copy it out on the right side. The right side of many such tablets is very thin, if it is preserved at all, as the student’s work was time and again erased by scraping off a layer of clay. Advanced students were sent off to copy inscriptions on standing monuments. At Nippur in the eighteenth century they reproduced on clay tablets what they read on the statues of kings from the twenty-fourth century, and they indicated where on the monuments these inscriptions were located.³² It seems thus strange to me to assert that all scribal instruction was based on oral teaching and that the spoken version was considered superior to the written one. Written examples were often consulted and reproduced, and the goal of the entire education system was to train writers.

In one of the early second millennium literary dialogues about a student's life, the young man boasts:

If you examine what I write, you will see that I have to spend less than three months more in school. I have already recited and written the Sumerian and Akkadian words of the list called *a-a me-me*. I have written all the lines of the list of people's names called *Inanna-teš* and of the word list called *lu = šu*, even the outdated ones. I can show the signs, their writing, and meaning; that is how I express myself.³³

There is no evidence at all from Mesopotamia that oral communication was considered superior to writing or that there was an oral tradition independent from the written one. While oral and written transmission existed in parallel, the latter was considered the most authoritative. In a seventh-century letter to the Assyrian king Assurbanipal, an unidentified priest from Nippur wrote:

(Only) [*rites that*] are written down in scripture are our rites. They have been performed by our forefathers, and they meet the needs of the king. (There are) a hundred, (nay,) a thousand (rites) which, as far as I am concerned, would be suitable for the *purification* of the kings, my lords. But, because they are not our rites, they are not recorded in scripture.³⁴

Scholarship was thus essentially and by definition based on written sources, which were to be read. The way in which the text was spelled out was visible and could be interpreted according to the principles I illustrated before for the names of Marduk. The scribal art was indeed "father of scholars."³⁵

The Death of the Author?

Who were the scholars, the philosophers whose ideas we will try to investigate here? Modern historians of philosophy essentially study a sequence of thinkers, great men (and some women) whose theories define a moment in time: Aristotle, Kant, Arendt . . . in the European tradition; Avicenna/Ibn Sinā, Averroes/Ibn Rushd, . . . for medieval Islamic philosophy; Confucius/Kong Fuzi, Mencius/Meng Zi, . . . for ancient China, and so on. When we turn to the ancient Mesopotamian material we are confronted by a blank in this respect: there were no

acknowledged authors, only manuscripts. With very few exceptions this is true for all writings there, apart from letters and records of practical use. This has caused much anxiety among modern scholars. Numerous investigations of Mesopotamian authorship exist, and they all conclude that the few examples where names are attached to written creations are exceptions that confirm the rule.³⁶ Mesopotamian literary and scholarly writings were anonymous.

What is an author, however? The idea that it is a human who can declare that he or she created a text is very modern; Roland Barthes claimed that this concept is “the epitome and culmination of capitalist ideology,” something that shackles the text and that should be killed off. Michel Foucault’s essay on the question pointed out how the idea and competence of the author is historically determined and depends on what genre of writing is involved. The author is not an individual identified as are other persons, but a process of interaction with the discourse, which can entail a multiplicity of voices. It makes more sense to talk of the author function, he claims.³⁷ The Mesopotamians seem to have reached that conclusion many centuries ago. They did recognize human agency as a factor in the production of a text, but authorship was more complex than a single person who stood at the point of origin; it involved transmission and preservation as well. Literary creativity was “an ongoing, contributive exercise,”³⁸ and implied creators, copyists, and owners. The boundaries between these three groups were fluid.

We get a view of this attitude in a seventh-century academic text known from five fragments found at Nineveh, and published in modern times under the title *The Catalogue of Texts and Authors*.³⁹ The modern designation portrays it as one of the exceptional records of authorship in the modern sense of the word: it lists the titles of corpora of texts—The Lamentation-priests’ Corpus, for example—or of individual compositions—the series *Sakikkû*, for example—and states that they were “from the mouth of someone” or a similar phrase. The names that follow this phrase show, however, that these attributions had a different meaning from what we find in library catalogues today—one entry claims that a horse dictated the text. Let us look at some passages more closely.

The *Catalogue* starts off with

[The Exorcists’] Corpus; The Lamentation-priests’ Corpus; When Anu and Enlil; [(If) a] Form; Not Completing the Months; Diseased

Sinews; [(If)] the Utterance [of the Mouth]; The King, the Storm (?), whose Aura is Heroic; Fashioned like An. [These are] from the mouth of the god Ea.

The list includes some of the most sophisticated and authoritative scholarly and literary works of the first millennium—I will refer to some of them repeatedly later on—and attributes them to the god of wisdom, Ea. Such an attribution is not really surprising, nor is it unparalleled in world history: there are many well-known cases where texts are said to be from a god's mouth. In another entry, the *Catalogue* refers to the most explicit example of a god dictating a literary work to a human being known to us in the Mesopotamian corpus. It states:

[King of All Habitations, Creator of] the World Regions. [This is what] was revealed to [Kabti-ilani-Marduk, son of Dabibi], and which he spoke.

The quote is lifted directly from the end of a poem of the early first millennium, the *Erra Epic*. There a man called Kabti-ilani-Marduk reported that he heard the text from the god Ishum at night, and that he wrote it down the next morning, not adding or subtracting a single sentence. Kabti-ilani-Marduk reveals himself as the faithful transmitter of the text.⁴⁰

Other so-called authors in the *Catalogue* are presented as more active, however. Most famous today is Sîn-lēqe-unninni, who appears in this entry:

The series of Gilgamesh is from the mouth of Sîn-lēqe-unninni,
the []

That man was indeed closely associated with the *Gilgamesh Epic* in the first millennium, but we know that he did not compose the poem. We can reconstruct that epic's literary history, as I will discuss later, and it is clear that its original composition preceded its alleged author by centuries. At most we can say that sometime in the late second millennium Sîn-lēqe-unninni produced an edition of it that was much respected later on. When we look at appearances elsewhere of the names of Sîn-lēqe-unninni, Kabti-ilani-Marduk, and others in the *Catalogue* we see how they were not authors in the modern sense of the term, yet crucial for the author function, that is, the interaction with the discourse. For this information we need to turn to a scribal practice we call the colophon.

Scribes and Collectors

Especially in the first millennium, literary and scholarly cuneiform tablets ended with brief passages—we call them colophons—in which the scribes provided information that was liminal to the text's contents. Colophons were both within and outside the manuscript. When the tablet was part of a multi-tablet series, the colophon registered its number and sometimes quoted the first line of the subsequent tablet. Important for our purposes here is that colophons regularly named a manuscript's owner and its scribe. The distinction between the two was vague. When the colophon merely asserted "tablet of," it seems this meant that scribe and owner were the same person; occasionally it said so explicitly: "He wrote it himself." When two names were mentioned, the scribe frequently was the owner's son.⁴¹

In many colophons scribes and owners traced their lineage, not only through their father's name but also through what we call an ancestral name. While this information allows us to reconstruct the histories of scribal families across generations and the traditional boundaries of political history, the ancestral names also tell us much about the self-perception of the scribes. Ancestral names were not limited to scribes and tablet owners but common throughout urban society in later first millennium Babylonia. Of the seventy-seven ancestral names attested in the city Uruk in the sixth century, fifty-six were used for one type of professional only, so these names created artificial lineages to express a sense of professional identity.⁴² People selected eponymous ancestors who were connected to their professions. Those seem mostly to have been men who had lived in the late second millennium, and whose names had survived through tradition. The choice of the names was thus important, as they were a mark of distinction. And not surprisingly, those of scribes and tablet owners are the names that appear in the *Catalogue of Texts and Authors* as well: Dabibi as the father of Kabtilani-Marduk, Šîn-lēqe-unninni, Ashgandu, Shumu-libshi, and others.⁴³ Admittedly the *Catalogue* includes several names not attested as scribal ancestors, and the ancestral names include some not found in the *Catalogue*, but it is clear that the two sources share a common intellectual background.

According to the colophons, who possessed the manuscripts was as important as who wrote them. In Near Eastern antiquity both institutions and individuals owned tablet collections—we can call them libraries. The most famous library from ancient Mesopotamia is the one King

Assurbanipal of Assyria (ruled 668–627 BC) sponsored, a gigantic collection that was kept in the royal citadel at Nineveh, called Kuyunjik in modern times. The library, discovered at the dawn of European exploration of Mesopotamia, is massive in size, and interpreting it is not easy. In essence, no archaeological context exists for the many tablets that were scooped up *en masse* and shipped to the British Museum in London, where they now form the Kuyunjik Collection. It is certain that items of various palaces, temples, and private residences in the citadel and elsewhere in Nineveh (and possibly from other sites as well) were mixed up together during that transfer.⁴⁴ So we cannot say that the Kuyunjik Collection is the library of Assurbanipal, but that does not mean no such library existed. Colophons show that Assurbanipal considered himself to be the owner of a coherent body of texts. On a substantial number of tablets appears an *ex libris* that was so often repeated that some scribes used molds to stamp it onto the clay, while others wrote it in ink: “palace of Assurbanipal, king of the universe, king of Assyria.”

It is also clear that Assurbanipal wanted to present himself as the scribe of many of the manuscripts, removing the distinction between owner and scribe. One colophon states, for example: “I am Assurbanipal, king of the universe, king of Assyria, to whom the gods Nabû and Tashmetu gave great wisdom and who has bright eyes. I wrote the cream of the scribal art.” Modern scholars used to object that Assurbanipal did not have the skills needed to write tablets with this level of complication, but we know now that as a young man he had an advanced scribal training under a leading court scholar. So he could have written part of the library himself, although certainly not the whole.⁴⁵

Assurbanipal did not create his library from scratch, but followed in the footsteps of his predecessors. The core was built by combining older collections, including private ones of Assyrian scholars, such as Nabû-zuqup-kēna, who had worked in Kalhu between 718 and 684.⁴⁶ The king intensified collecting efforts, however, and it looks like his goal was to bring together as many items of Mesopotamian literature and scholarship as possible. He, and seemingly everyone around him, had no interest at all in foreign works, but wanted anything written in Babylonia. A small group of letters, preserved from Babylonian copies made perhaps hundreds of years after the fall of Assyria, attests to his methods. One reports the demand of an unnamed king, probably Assurbanipal but perhaps his father Esarhaddon, to his representative in the Babylonian city Borsippa:

The day you read this tablet, take in your company Šumāy son of Šum-ukin, his brother Bēl-ēṭir, Aplāy son of Arkât-ilī, and the scholars of Borsippa whom you know, and collect whatever tablets are in their houses and whatever tablets are kept in Ezida (the temple of Nabû in Borsippa). Search out for me (the letter gives a long list of works used by exorcists), and any texts that might be needed in the palace, as many as there are, also rare tablets that are known to you but do not exist in Assyria, and send them to me.

A reply to a similar request from Assurbanipal is also preserved:

To Assurbanipal, great king, . . . The dutiful Borsippans will send back to the king their lord the instruction that he wrote as follows, “Write out all the scribal learning in the property of Nabû and send it to me. Complete the instruction!” Maybe the king says to himself, we (are ones) who, like the citizens of Babylon, will shirk (it) by (using) confusing language. Now, we shall not shirk the king’s command. We shall strain and toil day and night to complete the instruction for our lord the king. We shall write boards of sissoo-wood, we shall respond immediately. And regarding the board in Sumerian, the glossary about which you sent word, there is none but that in the Esagil (Marduk’s temple in Babylon). Let enquiries now be made before our lord the king. [You should] send word to the citizens of Babylon.⁴⁷

Acquisition records document that some 2000 clay tablets and some 300 writing boards—wooden polyptychs covered with a wax layer into which the cuneiform text was scratched—were added to the library in 647. It is impossible to calculate how large Assurbanipal’s library was. Combined with administrative documents, letters, and reports, the number of Kuyunjik texts in the British Museum today is around 26,000 tablets and fragments, which include multiple copies of some compositions. Published estimates have ranged from 5000 literary and scholarly works to 1500, but the latter number seems too low now that we know of the acquisitions in the year 647.⁴⁸

There existed a large number of noninstitutional libraries throughout ancient Near Eastern history as well, regularly found in private residences during excavations all over the region from the Zagros Mountains to the Mediterranean coast. Especially in the first millennium, colophons allow us to reconstruct their contents with great certainty, and they show how several generations of the same families maintained and expanded the collections, oftentimes writing new manuscripts them-

selves. The range of interests and scholarly competence these libraries display can be amazingly broad. Take, for example, Nabû-zuqup-kēna, a man merely identified as scribe in the colophons but clearly a very high-ranking one. He owned manuscripts dealing with astrology and astronomy, including many tablets of the massive omen series *Enūma Anu Enlil*, which had been copied over a period of seventeen years. His library also held series of terrestrial omens, oracle texts, the *Ritual of the Diviner*, prayers, incantations, and the final tablet of the *Epic of Gilgamesh*. He was a true polymath.⁴⁹

We can thus say that to the Mesopotamians not one but three people fulfilled the author function. The original creator, whom in modern times would be considered the author, was given little prominence and was often considered to be a figure of the distant past. The manuscript owner was responsible for bringing texts together and the choice involved gave agency: Assurbanipal aimed at collecting everything written in Babylonia, while Nabû-zuqup-kēna made a selection among respected works. And the scribe, who was oftentimes the owner, was the transmitter. Here a strange situation existed: the scribe could do much more than faithfully copy of the text, although the colophon asserted that this was the sole aim.

The Fluidity of the Text

The colophons present us with something of a paradox: while they state that the scribe made a copy that was “faithful to the original and collated,”⁵⁰ we know from preserved manuscripts that this was untrue. The attitude reminds us of the first-century AD Jewish historian Flavius Josephus, who claimed he copied out the words of Moses “without adding any thing to what is therein contained, or taking away any thing therefrom” (*Jewish Antiquities* 1, 17), while it is obvious that he gave a different version from the one preserved in the Hebrew Bible. The contents and organization of literary and scholarly works in ancient Mesopotamia was never fixed and always open to change, because the author function was not restricted to the first composer of a text. Alterations were common and considered to be necessary. In a letter to King Esarhaddon, three Assyrian scribes wrote:

The series should be revised. Let the king command: two “long” tablets containing the explanations of antiquated words should be removed, and two tablets of the extispicy series, *bārûtu*, should be put (instead).⁵¹

Texts had millennia-long histories, with constant redaction that was the work of many people. Changes could have very practical motives: scribes of Assurbanipal added omens to the extispicy series to present the king as just and glorious, inserting his name in them. Even the authoritative astronomical series *Enūma Anu Enlil*, a massive collection of celestial omens to which Assyrians scholars constantly referred, circulated in parallel editions with varying details. Regional peculiarities existed, and even writers who lived outside the Assyro-Babylonian heartland of cuneiform culture felt free to introduce changes. At times the material became so disorganized and chaotic that someone had to put it in order. According to a first-millennium catalogue of medical texts, for example, the eleventh-century scholar Esagil-kin-apli fully reorganized that material, producing a new edition.⁵² His editorial work received explicit credit, but that was not often the case.

Although the term “canonical” was discredited long ago, Assyriologists continue to cite “canonical” versions of texts, often admitting they do so *faute de mieux*. Yet, canonicity brings to mind officially or divinely endorsed editions of writings, and those did not exist in ancient Mesopotamia. References in Assyrian scholarly letters distinguish between two types of textual transmission using the Akkadian terms *iškaru* and *aḫû*, which translate literally as “series” and “extraneous.” The materials so designated paralleled each other in character, although they differed in contents and were preserved side by side in some libraries. It does not seem that one was considered superior to the other. Most likely individual communities—say, scholars from a specific city or institution—preferred one version over the other. One group’s “series” could be another’s “extraneous” material and vice versa. The popularity of a text may have determined how faithfully it was reproduced. Scribes probably attempted to be more faithful to older originals when working with a text that was considered central to the corpus and that was copied frequently than when they worked with a marginal one. Still, no text was considered unalterable, and individual scribes could “improve” it. Thus they had authorial powers if they stayed within the accepted traditions.⁵³

Intertextual Reading

Creators, scribes, and owners all contributed to the author function for a Mesopotamian text; but the texts were never completed, the authorial work never finished. We are in the unusual situation that for many compositions multiple versions are known to us, and that a textual rec-

ord is available that documents its own genealogy through a continuous diachronic corpus. The contrast with other traditions is stark. Homeric and biblical scholars have long been engaged in drawn-out arguments about the prehistories of the texts they study. What were the sources, when were they dated, and what did they contain? Were there oral antecedents to Homer's great epics? What sources inspired the multiple traditions that we can trace in the biblical text as we know it today? Compare these uncertainties to the history of the *Gilgamesh Epic*. Popular modern translations render the best known and most completely preserved version reconstructed from multiple manuscripts that were excavated in the ruins of Nineveh, penned down in the mid-seventh century on twelve multicolumn tablets. But we also know previous versions of many passages of this poem—as we do not of the *Iliad* or the book of Genesis—through numerous manuscripts. We know that some parts of the *Epic* had ancestors in the Sumerian language, written in the early second millennium. We know that the famous Flood story had developed as a separate composition in the second millennium before it became part of the *Epic*. Our knowledge is incomplete, but it is greater than in other fields of ancient literature, and it continues to grow as new manuscripts crop up. Even today we have a reliable pedigree of the seventh-century text of the *Gilgamesh Epic*, and the evolution did not end at that time. Although thereafter the text was more fixed than before, Babylonian scribes continued to make changes to it into the late second century BC. The alterations by successive authors were not innocent elaborations, but changed the character and emphasis of the tale and introduced new themes. In the Sumerian antecedents the heroism of the king was a major theme. The earliest Akkadian-language versions dealt with such issues as friendship, death, and power, while later on the wisdom Gilgamesh gained on his travels became the main focus.⁵⁴ Similar histories can be reconstructed for many literary and, especially, scholarly texts from Mesopotamia. Modern scholars of this textual material, often trained as biblicists or classicists, used to talk about proto-texts, forerunners, *Vorlage*, and the like, but most of them no longer do so as they realize that each moment in the tradition has equal validity. When we read a text, then, we do so intertextually, acknowledging its connections to its own other manifestations. Babylonian texts invite the discovery of their own genealogy.

Intertextuality (using the term in the broad sense it has acquired in literary criticism) can easily be extended further. Each text contains numerous internal references. This is most explicit in scholarly writ-

ings, which customarily elaborate paradigms according to multiple rules I will discuss in detail in several of the later chapters. When an omen based on the reading of the liver predicts a negative outcome because of a discoloration on the left, its full meaning is only clear when we realize that the same discoloration on the right is propitious. These references readily transgress the boundaries of individual texts and even of what we could call corpora of texts. In omens, what is written in the sky parallels what is written on earth, because at the time of creation Marduk “did the same on earth as what he brought to pass in heaven.”⁵⁵ Celestial and terrestrial omens are to be read in tandem. Legal pronouncements found in codes like Hammurabi’s use the same structure as divine verdicts in omens. Literary texts contain passages that resemble those in lexical texts, and vice versa. Both make reference to scholarly descriptive texts. Each text participates in a hypertext in which we can pursue references in ways that suit our purposes. The unity of discourse in Mesopotamian writings was thus never the individual text as attested in a single manuscript; it was the entire diachronic history of a text as well as its interactions with others.⁵⁶

A question that arises is how Babylonian authors knew about their culture’s literary history. The materials they left us are truly massive in number and detail;⁵⁷ but a vast period of time was involved, and naturally there is great variation in what has been preserved and discovered for specific periods of Mesopotamian history. Even if we have moments with extensive documentation, dark ages are common, and they are not only the result of our failure to find the written remains, the so-called “accident of recovery.” For long periods scribal activity in Babylonia was minimal—for example, from 1600 to 1400 and 1100 to 800; but there was always someone somewhere who kept the tradition alive—otherwise we cannot explain the continuity of its literate culture.

We can hold original cuneiform tablets written four millennia ago or even earlier in our hands today; their survival into modern times is mostly due to the fact that in antiquity they were discarded or buried in the ruins of the buildings where they were stored. In essence we find the manuscripts that went out of circulation in the distant past, not those that had been carefully preserved. The situation for the copyists in ancient Mesopotamia was very different. Although they occasionally stated that they found their source in debris⁵⁸ and they often worked with damaged originals—they noted down when a passage was illegible—they did not routinely rediscover caches of old manuscripts that had been buried for centuries, like we do, and use them as the basis for

their work. Rather, they made copies of materials that were in circulation. To my knowledge no one has ever estimated how long a tablet kept on a shelf indoors would survive, but it seems that this would not have been many decades.⁵⁹ When the tablet's clay was baked it was quite indestructible, but most tablets were only sun-dried and thus more fragile. Damage was likely to occur pretty soon, and it seems unlikely that usable century-old clay manuscripts would have been routinely available to scholars.

There existed something of a literary trope claiming that manuscripts were extremely old, but these statements seem more fantastic than real. For example, the Assyrian scholar Ašaredu wrote to his royal master in the seventh century: "Now then I have written and fetched from Babylon an ancient tablet made by King Hammurabi and an inscription from before King Hammurabi."⁶⁰ If accurate it would mean that the man had access to a tablet that was more than a thousand years old, and it is much more likely that he associated a manuscript with the by-then legendary King Hammurabi, famed for his wisdom, to give it distinction. A long colophon on a ritual tablet from the Seleucid era presents an entire literary legend about the history of its source:

(This tablet was copied) from tablets which Nabopolassar, king of the Sea Land, carried off as plunder from the city of Uruk; but now Kidin-Anu, a citizen of Uruk, a *mašmašu*-priest of Anu and Antu, a descendant of Ekur-zakir, an *urigallu*-priest of the Resh temple, looked at these tablets in the land of Elam, copied them in the reigns of kings Seleucus and Antiochus, and brought (his copies) back to the city of Uruk.⁶¹

Again it seems more likely that the scribe fancied that his source was 300 years old and connected to a renowned king, Nabopolassar, the founder of the great Neo-Babylonian Empire, than that such ancient manuscripts had indeed survived. Other writing materials existed besides clay tablets: wooden or ivory boards with a layer of wax into which the cuneiform was scratched, and, in the first millennium, parchment; but these were even more fragile than clay tablets.

Cuneiforms manuscripts were thus ephemeral objects and needed to be copied constantly in order to preserve their content. This means that throughout time scribes had to engage with literary and scholarly materials, irrespective of what happened around them. This is well documented in the exceptionally coherent corpus of writings excavated in the libraries of Hattusas, the second-millennium capital of the Hittites

in Anatolia, where we see a desire to preserve texts through regular recopying of manuscripts, with constant adjustments and updates.⁶² Work like this resulted in an amazing “stream of tradition” (as the late A. Leo Oppenheim called it),⁶³ which was not the slavish reproduction of a corpus with a resistance to change. On the contrary, Mesopotamian intellectuals had an enormous freedom with respect to the materials they read and copied. Writing was creative, not imitative, and all writers were part of an unbroken chain of people working in the same tradition. Political powers not only tolerated this work, they actively sponsored the preservation of scholarship. There was no book burning in ancient Mesopotamia!⁶⁴ The Assyrians repeatedly confiscated libraries and manuscripts when they controlled Babylonia, not to destroy them but to take them home and enrich their own collections. In Mesopotamia, a three-thousand-year-long written intellectual history is documented for us, the result of the creative genius of thousands of individuals, each one participating in a grand tradition that mandated certain principles but at the same time allowed for flexibility and personal input.

Ironically, despite our knowledge of hundreds of names of scribes and tablet owners, and of some so-called authors, we have no idea of what exactly they did. They could alter texts, but we do not know to what extent, and can at best venture guesses.⁶⁵ The anonymity of scholarship and literary creativity at first may disorient if we aim for a traditional history of thought, but it puts us in a privileged position; we do not have to kill off the author: he or she is already dead. We are forced into a close reading of the text, as the author has disappeared. Social and marital status, professional preoccupation, and the relationship to grand historical events are of no importance. Even if we wanted to, we could not recover them.⁶⁶ We cannot yield to the temptation to historicize the text, to reintroduce the author’s gender, race, and class. As modern readers we are in the same situation as the ancient Mesopotamian ones: the text is our only guide, and the challenge we face is to understand it on its own and in relationship with other texts.

It would be quite foolish to attempt a study of all areas of philosophical inquiry detailed in the vast Mesopotamian textual material,⁶⁷ so I will focus on one area alone and examine it in three structurally related corpora: epistemology as displayed in writings on language, the future, and law. The corpora employ the same format: they do not state theories but develop examples on the basis of underlying principles. Their reasoning is pointillistic, cumulatively exploring issues case by case. In

the field of language ancient scholars listed Sumerian words and their translations into Akkadian or, less often, other languages, as well as guides to pronunciation and interpretation. For predicting the future, they listed occurrences in heaven and on earth and stated what these foretold. In law, they listed legal and illegal actions and what the outcome in a just world should be. In all corpora they used a mixture of fact and fiction; existing words and words made up, observed phenomena and imaginary ones, possible transactions and hypothetical ones. These corpora of scholarly writings had multiple aims and purposes, but the one they shared was a demonstration of how and what humans know. They disclose what Babylonians thought about reality; they reveal a Babylonian epistemology.

PART II



THE ORDER OF THINGS (*LES MOTS ET LES CHOSES*)

CHAPTER 2

Word Lists: A Very Short History

An inquisitive mind wanting to learn about today's United States of America might decide to read through *Merriam-Webster's Collegiate Dictionary*, which in its eleventh edition from 2003 contained 165,000 entries and 225,000 definitions, according to the American Library Association. The dictionary follows a rigorous system of alphabetic organization that secures a proper place for each entry. The list of words progresses in a linear fashion, using the written form as a guide, and leaves no uncertainty about where an entry should be. Yet, although the term "dictionary" carries connotations of authority and precision, and even when editors seemingly see no limit to the number of publishable dictionaries—general or focused on specific topics; there exists a *Dictionary of Beer*—few of us would advise this inquisitive mind to proceed. As the words' meanings are irrelevant to the structure of the dictionary and the accrual of knowledge is random and arbitrary, someone reading it cover to cover would end up looking as foolish as the Autodidact in Sartre's *La nausée*, working his way through the books in his town library alphabetically, author by author. We recommend exploration of topics by their contents, grouping together elements and ordering them according to taxonomies discrete from their written form. We regard these classifications as grounded in scientific research and crucial for a correct understanding of any subject. They are meaningful to us and provide the only appropriate way to grasp the world that surrounds us.

Of course, ever since Michel Foucault published his *Les mots et les choses* in 1966 we have become increasingly aware that scientific classifications are entrenched in ephemeral discourses and that other systems can and do exist, rooted in other discourses and equally valid in their contexts. Foucault famously started his book with a quotation

from Jorge Luis Borges's essay "The Analytical Language of John Wilkins" reproducing the classification of animals according to a certain Chinese encyclopedia: "In its remote pages animals are divided into: (a) belonging to the emperor, (b) embalmed, (c) tame, (d) sucking pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camel-hair brush, (l) etcetera, (m) having just broken the water pitcher, (n) that from a long way off look like flies." But, while Foucault went on to explore epistemic shifts in European thought, Borges focused on a different idea of classification, one relating to language. He described Wilkins's analytical language as follows: "He divided the universe in forty categories or classes, these being further subdivided into differences, which was then subdivided into species. He assigned to each class a monosyllable of two letters; to each difference, a consonant; to each species, a vowel. For example: *de*, which means an element; *deb*, the first of the elements, fire; *deba*, a part of the element fire, a flame." While this is not exactly how the Babylonians saw the Order of Things, Borges unknowingly explained their principle of playing around with the written form of words to specify meaning.¹

Remarkably, the first works of Babylonian scholarship and thus the earliest in world history are lexicographic, that is, they are word lists. I use "remarkably" because the extraordinary character of these works seems to be ignored not only by scholars surveying the world history of lexicography, but also by those specialists of Babylonian scholarship who have devoted much effort to the study of lexical lists. No other ancient culture developed lexicography at the moment its people started to write, and throughout antiquity lexicographic activity outside Babylonia always remained minimal. Ancient Near Eastern cultures in Syria, Anatolia, and Iran did not develop lexical texts independently from Babylonia. In Egypt, where writing began soon after it did in Babylonia, word lists were extremely rare and were composed much later than the moment of script invention; the earliest clear example is from the nineteenth-eighteenth centuries BC, the most extensive ones from late in the second millennium, when Babylonian scribal culture influenced Egypt. Ancient Greece developed lexicography only in the Hellenistic period, and it was in the late first century BC that the Roman grammarian Marcus Verrius Flaccus collected a massive list (very poorly preserved today) of Latin words with explanations, which inspired later imperial lexical work. In Sanskrit, thesauri of difficult words in the Vedas may have originated late in the first millennium BC.

Compilations of nouns are probably more recent. Amarasinha, author of the most complete of such collections, the *Amarakoṣa*, which catalogues topics like heaven, time, language, and the underworld, is said to have lived in the fourth century AD. In China, with a writing system that shares its basic characteristics with the Babylonian one, the first repertory of words, the no-longer extant *Erya*, dates to the third century BC or soon thereafter.

All these works were collections of glosses intended to explain difficult passages in highly valued texts. They did not aspire to gather together these languages' full vocabularies. The Islamic Middle East may be the earliest culture after Babylonia to explore lexicography in full. The Arabic term for it, *kāmūs*, confers the idea of exhaustiveness, and already in the eighth century AD the philologist al-Khalil ibn Ahmad produced *Kitāb al-ʿayn*, "Book of the (Letter) 'Ayn," using phonetic principles as the basis of organization.² Dictionaries aiming at a complete inventory of a language's vocabulary developed as universal tools in the modern period only: Samuel Johnson's *A Dictionary of the English Language* in 1755, Noah Webster's *An American Dictionary of the English Language* in 1828, the Grimm brothers' *Deutsches Wörterbuch* started in 1838, and so on. There were antecedents to these grand works, but they present the first attempts of comprehensiveness for the European languages recorded. The earliest preserved word lists from Babylonia may not have been complete in their coverage of the words used in contemporary writing, but certainly by the early second millennium BC the lexical collections were gigantic and seem to have tried to record every existing word in the Sumerian language. No one has calculated the number of preserved entries at any moment in the history of this corpus. They range easily into the tens of thousands, from simple and common words, such as a for water, to rare compounds, such as *ki-ta-geštu-ĝu*, the lower part of my ear.³ Even more, the compilers of lists made up fantasy words that never appeared outside this type of text and had no practical use at all. This exercise defines the Babylonians' relationship to written language and reality.

The principal concern of the lexical texts was Sumerian vocabulary, the words of the language that was the first to be recorded in writing in Babylonia and that formed the basis of the cuneiform script. Sumerian was an agglutinative language. One of its distinctive characteristics was that it preserved the integrity of the lemma whatever its function in the sentence and that it modified meaning by adding elements to core terms. In contrast, Semitic languages, such as Akkadian, changed

the root and its vocalization for such purposes. With the invention of script the core terms each received a distinct visual rendering, a Sumerian word-sign (logogram). Since the shapes of the signs were based on convention, all readers and writers had to be made aware of their meaning and phonetic rendering. Lexical lists recorded the accepted norms. When Semitic Akkadian speakers and others adopted the Sumerian cuneiform script, they continued to render many terms with such logograms, and after some time their lexical lists added translations of the Sumerian into their vernaculars. Moreover, although Sumerian died out as a spoken language between 2000 and 1600 BC (scholars disagree on the exact date), new texts continued to be composed in it into the Hellenistic period; and writers of Akkadian-language scholarship and literature increased the use of Sumerian logograms after the middle of the second millennium for reasons that will become clear in chapter 3. Authors and readers needed guides to the meanings of Sumerian words, and the lexical lists supplied them.

The lexical genre had an enormous flexibility and was almost limitless in its ability to expand. Lists were enlarged, fundamentally revised, and newly created throughout history. Words were grouped in all sorts of ways—we will look at that in more detail in the next chapter—mostly taking the Sumerian into account, but sometimes the Akkadian instead. Thousands of manuscripts exist: whenever and wherever Babylonian writing appeared in the ancient Near East there was lexical material. The physical shape of lexical manuscripts shows a great diversity, which indicates, I believe, that we cannot view their use through one lens only. Most numerous are short excerpts produced in schools. Scribal students copied out sets of lines either on lentil-shaped tablets—a typical school product—or on larger rectangular tablets with or without the teacher's example. The clearest evidence of a study tool is a type of tablet that contains the model written out neatly on the left with the student's copy on the right. Lexical material was taught early on in the school curriculum. In early-second-millennium Nippur students started with the study of simple signs—such as *tu-ta-ti*—followed by increasingly complex lexical lists, and then moved on to pieces of literature and to mathematics. Repetition was the basis of education, and students copied out passages over and over again.⁴

Alongside the school exercises existed versions of lexical lists that provided large extracts or the complete text, fewer in number but much more elaborate. They represent the craft of Babylonian lexicography in

its fullest expression. Often the manuscripts are not simple tablets but carefully shaped and inscribed objects whose physical appearance itself shows their importance. They contain multiple columns (regularly twelve or more of them) listing hundreds of entries in the same manuscript. The manuscripts do not only include two-sided tablets, but also prisms with four, six, or more sides, and cylinders. They were thus monumental in character, something we should not discount as insignificant. Today, too, the monumentality of a dictionary like the OED adds to its authority. Readers of the compact OED peer through magnifying glasses that come with the two-volume set to absorb all the details. Sitting in front of a lexical prism with sixteen columns of minuscule script was even more daunting.

In recent years scholars of lexical texts have emphasized the educational nature of the genre, and they argue that even elaborate prisms were student exercises, however startling this may seem. Some prisms contain too many mistakes to be reference tools, they claim, and are most likely the work of advanced students. I find it hard to accept this conclusion. First, the argument is primarily based on materials from the early second millennium, and first-millennium prisms, cylinders, and large multicolumn tablets from libraries like Assurbanipal's in Nineveh certainly are reference tools. But in earlier periods, too, the value of the lexical manuscript as an object was regularly stressed. Already among the earliest finds from the late fourth millennium, certain tablets contained a colophon that connects them to the highest official in Uruk, and throughout the third and early second millennia beautifully crafted and inscribed cylinders and prisms appear. Around 2300, the governor of Girsu, Lugalušumgal, signed his work on one side of a six-sided prism, calling himself scribe. He was no student passing an examination. Although there are indeed prisms whose inscriptions are poorly written and contain elementary mistakes, that does not indicate that all these objects were equally inexperienced, and that learned scribes did not produce or consult them.⁵ The principles of elaboration of lexical entries, which I will discuss in the next chapter, included focus on graphic appearance of cuneiform signs; while one can suggest that experienced teachers memorized entire lists and had no need for reference works, it seems that those establishing such graphic sequences would have needed to do so in writing. I imagine that scribes worked hard to develop lexical lists for scholarly purposes before these were used in schools as exercises. Likewise, student editions of *King*

Lear probably make up the majority of the play's preserved manuscripts from twenty-first-century Britain, but that does not make the tragedy a school exercise.

The Babylonian lexical corpus was vast, enormously complex, and had a millennia-long history. It thus presents great challenges to those who study it in modern times, a work that started in the nineteenth century. Lexical manuscripts were among the first cuneiform tablets published, and the decipherment of Sumerian depended wholly on the information they provided. The study of lexical lists has developed its own jargon and practices that are often opaque to outsiders. It uses series designations, such as S^a, Vok. S^a, and 𒊕AR-ra = *hubullu* (often updated as Ura = *hubullu*), indicates stages in the evolution of a series with terms such as “Proto-“ or “Ur-,” “forerunner,” “canonical” or “standard,” and employs a scholarly terminology that has changed over time. Only a specialist fully comprehends the practices of the discipline.

The aims of the study of lexical material have evolved as well. Throughout the twentieth century and continuing today scholars at the University of Chicago have tried to reconstruct versions of lexical series that are as complete as possible, by combining information from all surviving manuscripts.⁶ The resultant volumes, seventeen and one supplementary volume so far, provide an “ideal type” of each series by putting together every line recovered and creating reconstructions that join manuscripts that can be hundreds of years apart in date. The compilations look like authoritative versions that existed in the past and are now lost, and against which preserved manuscripts should be compared, but they are modern fictions. Not surprisingly, the actual manuscripts almost always show discrepancies, as if the ancient scribes made mistakes. Very frustrating for someone who wants to find out what lexical texts existed at a specific moment in time is that the date of manuscripts is mostly not provided in these volumes, not even the broad categories that the discipline of Assyriology uses, such as Neo-Assyrian, Neo-Babylonian, Late Babylonian, and the like. An ongoing web-based project at the University of California, Berkeley is pulling the reconstructions apart, recovering individual manuscripts. So far, its published work covers a small part of the available documentation only, and this project too uses broad categories, such as “first millennium.” When completed it may, however, provide the necessary data to write a history of Mesopotamian lexicography.⁷

The complexity makes it hard to appreciate the lexicographic work Babylonians undertook, and no simple overview is possible or would do justice to the material.⁸ In this chapter I will survey the lexical material in Near Eastern history briefly and selectively, but with sufficient detail to convey the intricacies of the genre's developments. The overview intends to provide the basis for the next chapter's focus on uncovering the principles of this work, how lexicography was formulated, and how it interacted with other writings. My primary goal there is to show that Babylonian lexicography was a scientific activity intended to foster understanding of the world. Its practitioners gave structure to reality. They did not just record vocabulary but aimed to clarify the relationship between the realities words signified.

The lexical list was part of Babylonian scholarship from the late fourth millennium BC, when the cuneiform script originated, to the first centuries AD, when the script went out of use. Manuscripts containing sections have been found in almost all major excavations in Babylonia and Assyria as well as in numerous other sites throughout the Near East. They are the hallmark of Babylonian literate culture: when they appear we know that someone mastered the basics of Babylonian cuneiform and held the keys to unlocking the vast body of writings in that script. Some of the people in contact with lexical lists may have been poor students of the script, and rarely were they experts in all aspects of Babylonian knowledge, but they set themselves apart from the illiterate masses of the population by consulting these texts.

A History of Sorts

The first writing in world history appeared in late-fourth-millennium Uruk, itself the first true city in history, located in the very south of Babylonia near the Persian Gulf. The newly developed urban economy called for a sophisticated system of record-keeping enabling people not present at the time and place of a transaction to take account of it. The writing system organized symbols for numbers, commodities, professions, and actions whose meaning everyone who could read recognized. Most likely the inventors spoke Sumerian, and the script—we call it archaic cuneiform—rendered each word with a separate sign. Ninety percent of the preserved Uruk tablets are administrative, but the other ten percent are lists of words, grouped together topically. The known texts list such things as professions, city names, domestic animals, fish,

birds, plants, and vessels. For example, a (fragmentary) manuscript of the list of professions reads:

COLUMN 1:	(TENTATIVE TRANSLATION)
1 [I] ʾnam ₂ di	(supreme judge?)
2 I nam ₂ nam ₂	(?)
3 I nam ₂ uru _{a1}	(mayor?)
4 I nam ₂ erin	(lord of the cedar?)
5 I gal _a ʾšubur	(overseer of . . .)
COLUMN 2:	
1 I ʾabgal	(sage [a kind of priest?])
2 I ʾkingal	(chief)
3 I gal _a te	(courtier)
4 I gal _a sukkal	(overseer of the messengers)
5 I gada _a sukkal	(?)
6 I gal _a ga _a	(?) ⁹

The lists are monolingual—almost certainly Sumerian—and merely group together words. Although many of these are terms one finds or could expect to find in the contemporary administrative documents, they extend beyond practical use. The lists of birds and of fish, for example, each enumerate more than a hundred species, providing a detail impractical for daily purposes and not paralleled in the administrative texts. Moreover, some words are purely made-up. In the list of vessels, which essentially inserts various signs into basic matrices signifying a variety of containers, made-up words appear side by side with those found in the administrative texts. Inside the basic matrix of a jar, whose Sumerian value we read as DUG_b, appear such commodities as barley and milk, but also the signs for pig and donkey. While we could hypothesize that they record liquid products of those animals, it seems more likely that scribes invented such signs.¹⁰ Two basic principles were thus established at the start of the lexical tradition: the lists spelled out words in a vertical order, and they included both functionally practical and impractical words. They dealt with written reality, not with physical reality.

The lists established in the late fourth millennium had an enormous longevity, and scribes copied them out for close to 1500 years. Third-millennium manuscripts spread across cultural and political boundaries show the same organization wherever they are found. In the twenty-fourth-century Syrian city of Ebla, more than one thousand kilometers

from Babylonia, scribes reproduced contemporary Babylonian lists word for word. They introduced a crucial innovation, however. A few of their lexical lists were bilingual, sporadically inserting Eblaite translations after or before Sumerian terms. The bilingual versions could exist in parallel with monolingual Sumerian versions of the same text. For example, this brief tablet from Ebla provides nine Sumerian entries, five of which have a translation into Eblaite (rendered in *italics* here; even when we do not know how to translate the word we can recognize it is Eblaite because of its Semitic structure):

COLUMN 1: (TENTATIVE TRANSLATION)

- | | | |
|----|---|-------------------------|
| 1 | [ni ₃ -du ₁₀] | (that which is good) |
| 2 | <i>tu₃-bu₃-tu₃</i> | (that which is good) |
| 3 | ni ₃ -zah ₃ | (that which disappears) |
| 4 | <i>dar-RI-du</i> | (that which disappears) |
| 5 | ni ₃ -geštin | (?) |
| 6' | <i>ga-ga-ri₂-tu₃</i> | (?) |
| 7 | ni ₃ -sig? | (?) |

COLUMN 2:

- | | | |
|---|---|-------------------|
| 1 | [ni ₃ -NE-igi-du ₈] | (?) |
| 2 | <i>ga-da-um_x</i> | (garment) |
| 3 | ni ₃ -du ₈ | (garment) |
| 4 | ni ₃ -du ₈ -du ₈ :ud | (?) |
| 5 | ni ₃ -du ₈ -du ₈ | (container?) |
| 6 | <i>a-ba-um</i> | (?) |
| 7 | ni ₃ -UD | (?) ¹¹ |

Bilingualism would reappear in the early second millennium in Babylonia itself, to be used consistently with every Sumerian entry receiving an Akkadian translation. However, considering the distance in time, it is unlikely that the Eblaite practice inspired the later Babylonian one.

It was in the early centuries of the second millennium—referred to in modern scholarship as the Old Babylonian period—that fundamental changes in the lexical corpus appeared. The manuscripts that allow us to study lexicography are predominantly from a very specific context: schools whose students spoke various Semitic languages, that is, the Babylonian dialect of Akkadian and Amorite. They learned how to write Sumerian, however, which remained the language of literate culture and still prevailed in administration. Known school texts derive primarily from the southern Babylonian sites of Ur, where they disap-

pear after 1740, and especially Nippur, where they disappear after 1720. The use of lexical texts was very widespread: it is remarkable how manuscripts appear all over Babylonia, even in the smallest sites. This shows a deep penetration in society of literacy and the standard teaching methods.¹² It is not only Babylonians who learned to write in this way; at sites outside the region the same exercises were used to train speakers of many different languages.

The lexical texts of this period contained several innovations. While previously their sole focus was on vocabulary, at this point isolated grammatical elements and other parts of words were explained as well. New lists analyzed Sumerian cuneiform signs. Such lists, which we call syllabaries, recorded simple signs, formed only with one or two consonants and a vowel, separately from complicated ones made up from multiple components, such as the combination of five signs K1.SU. LU.UB₂.GAR, to be read as *ugnim* and meaning “troops.” As the pronunciation of the Sumerian word was not obvious and a single sign could be read in various ways, the readings were spelled out with syllables. These lists came with or without Akkadian translations. For example,

SYLLABIC

SUMERIAN	SUMERIAN	AKKADIAN	(ENGLISH)
mu-u ₄	TUG ₂	<i>li-it-bu-šum</i>	(to clothe oneself)
tu-u ₄	TUG ₂	<i>šu₂-ba-tum</i>	(garment)
nam	TUG ₂	<i>ru-bu-u₄</i>	(prince)
u ₄ -mu-uš	TUG ₂	<i>te-e-mu</i>	(reason)
		<i>mi-il-kum</i>	(counsel) ¹³

This passage thus indicates that the Sumerian logogram TUG₂ could be pronounced in four different ways, *mu*, *tu*, *nam*, and *umuš*, each of which with at least one Akkadian translation; in this instance, when read *umuš* two translations were possible. In these centuries as well new thematic lists developed, although some of the earlier third-millennium ones survived. Most but not all of the thematic lists added a column with Akkadian translations to the right of the column of Sumerian terms. The translations and attention to parts of words show that scholars wanted to make the meaning of Sumerian terminology explicitly clear to non-Sumerian speakers. Likewise, some texts explained Sumerian grammar, which was fundamentally different from the Akkadian one. Another aspect of lexicographic activity in the early second millennium is that the texts were placed into a sequence when

taught to students. There was variation in the curriculum, however, between cities and even between teachers in the same city.¹⁴

Although schools provided the context of the preserved lexical manuscripts and education was an important aspect of their use, they were not just practical teaching tools.¹⁵ Some lists that were not used in the school curriculum were still copied, and all of the lexical material included terms that were outdated. There was also a continuation of the practice from earlier periods of fabricating words without a realistic use. Throughout its long history in Babylonia, lexicography was never just a pragmatic activity.

The disappearance of southern Babylonian manuscripts after 1720 was the result of the collapse of political control over the region by a dynasty of the northern Babylonian city of Babylon. When Hammurabi conquered the region he inherited a flourishing scribal school culture; when his son Samsuiluna lost it, the ensuing chaos seems to have caused an exodus of scholars to northern Babylonia. They and others kept on developing the lexical corpus, whose remaining manuscripts are mostly of a different nature than the school texts of the south.¹⁶ Although some school material continues to appear,¹⁷ many of the preserved copies of lexical texts until around 1600 are prisms and cylinders, whose archaeological context and exact date are unfortunately unclear. They show that scholars expanded the contents of existing lists, created new ones and threw out some old ones, and standardized the addition of Akkadian translations. Simultaneously, scholars who remained in the south of Babylonia may have developed the lexical tradition further as well, but no evidence of it is preserved, a situation that persisted into the second half of the second millennium and beyond.

The use of Babylonian cuneiform extended beyond the region's borders in the early second millennium, and courts throughout the Near East employed scribes to write letters and accounts following Babylonian practices. These scribes were trained with tools similar to those used in Babylonia proper. The evidence published so far remains limited, but we know more existed. In the Syrian city of Mari archaeologists discovered a house that contained up to 1000 lexical and mathematical school texts, so far unpublished. After Hammurabi sacked Mari in 1761 and terminated its political dominance over northern Syria, students in other cities of the region continued to be trained with the same materials. Lexical (and mathematical) school texts were found in small numbers near Mari at Terqa, and farther away in various north-

ern Syrian and Iraqi sites. At Hammam et-Turkman near the Turkish border appeared a prism with a syllabary lexical list, an object that may have been imported from northern Babylonia. From the ancient city of Tigonānum, probably in modern-day southern Turkey—the exact location is unknown, as its tablets were illicitly excavated—derives a late-seventeenth-century list with Hurrian translations of Sumerian terms. It is the earliest example of the use of Babylonian lexicography by speakers of that language. These cities survived the upheavals of Babylonian politics, and their writings provide an important link with the later second millennium, when the preserved lexical evidence from that region is far richer than that from Babylonia.¹⁸

In western Iran at Susa, a city under strong Babylonian cultural influence, people also learned to write following Babylonian practices, as is documented in school texts from the late third to the mid-second millennium. The nineteenth-century evidence from the northern Mesopotamian trade center Assur and its colony in central Anatolia, Kanesh, presents a special case. Merchants there utilized a simplified version of cuneiform by relying on a reduced set of syllabic signs for their correspondence and accounting. This needed to be taught as well, and small numbers of school texts were excavated both at Assur and in the colony. Those were mostly mathematical in nature and focused on tools of trade like gold and silver, and the calculation of value. While the content of school texts there was unique, the approach to teaching was the same as in Babylonia.¹⁹

Around 1600, the entire Near East entered a period of historical obscurity, which in Babylonia essentially lasted for a thousand years. The scholarly and literary works found there are exceedingly few in number and derive almost exclusively from Nippur and Babylon, where schooling on the basis of lexical and literary excerpts survived.²⁰ The situation presents a paradox, which applies to all aspects of literate culture: if we see Babylonia as the driving force behind cuneiform literate productivity—as modern scholarship mostly does—we have to resign ourselves to the fact that we have little direct contact with its creative agents. We have much evidence of their work, but only through secondary sources, so to speak: imitations, often regarded as poor, in the so-called periphery of Mesopotamia, that is, Iran, Syria, and Anatolia, and standardized editions produced under Assyrian royal patronage. In contrast to the scarcity of sources from Babylonia, the widespread presence of lexical material throughout the Near East in the second half of the second millennium—more or less the years 1350 to

1100—is astounding. Babylonian had become the written *lingua franca* for palace elites from Egypt to Anatolia and from Cyprus to western Iran. When the Hittite queen wanted to communicate with Egypt’s pharaoh, for instance, her scribes rendered the message in Babylonian, written in cuneiform on a clay tablet. Wherever Babylonian cuneiform was in use, lexical material appeared. Small collections were excavated on the island of Bahrain, in western Iran, northern Iraq, Anatolia and northern Syria, Palestine, and even at Egypt’s ephemeral fourteenth-century capital Akhetaten. Large corpora appear in the Hittite capital Hattusas, the Mediterranean port of Ugarit, and at Emar on the Syrian Euphrates.²¹

Pragmatic concerns naturally played a role in the presence of lexical texts. If scribes had to write Babylonian cuneiform for their lords’ international correspondence, they had to have the tools to learn it. But these so-called peripheral users did not just passively adopt Babylonian practices. Their engagement with the material enables us to distinguish various regional approaches with their own additions, paleography, and the like: Syrian, Syro-Hittite, and so on. The use of lexical texts by people with very distinct linguistic and cultural backgrounds led them to add further translations of the Sumerian words alongside Akkadian ones. At Hattusas they included Hittite or Hurrian translations, at Ugarit Hurrian and Ugaritic ones, either separately or combined, and at Aphek west-Semitic translations. At Emar they added alternative Akkadian translations that often were very esoteric.²² In Egypt they created a Babylonian-Egyptian word list. A single entry in the lists could include elements in several different languages besides Sumerian and Akkadian—which we will explore in the next chapter—all aiming to make the entry more accessible to people with diverse language knowledge. But it was not merely a work of translation. When local scribes used writing systems other than the syllabic Babylonian—as in Ugarit, where an alphabetic script existed, and in Egypt, with its hieroglyphic writing—they transliterated their languages into that script, establishing equivalences fully within the spirit of Babylonian lexicography. Not all scribes had the same level of skill—those of Hattusas working under the patronage of a mighty royal court were much more advanced in their abilities to work with difficult materials than others;²³ but all felt free to modify the received text.

The people who wrote these materials were proud of their work and sometimes identified themselves in the colophons. Most intriguing perhaps is this statement by the scribe Ribī-Dagan at Emar: “I wrote this

tablet while in chains at the time of [. . .].” Was he forced to write out this material against his wishes, as we know happened centuries later to the highborn Babylonian Ninurta-gimilli, who was put in irons after completing the copying of a scholarly series?²⁴ In any case, Ribī-Dagan’s difficult circumstances seem to have led to an unusual number of mistakes. Modern scholars are often frustrated at the high degree of variability the manuscripts present even when they come from a single site. Both the selection of passages and their sequence lacks standardization. The movement of lexical materials seems to have been through various routes, sometimes directly from Babylonia, at other times via intermediaries. There was thus a complex system of agents and processes that spread lexical writings throughout the Near East in this period, much of it unclear to us. But, the rich diversity shows how scribes everywhere actively engaged with the material.

A region that played a special role in the preservation of Babylonia’s culture in the later second millennium was Assyria, just to its north. Starting around 1350 kings from the city of Assur formed a strong militaristic territorial state that vied for power with its established neighbors. Its inhabitants wrote and spoke a language very akin to Babylonian—another dialect of Akkadian, Assyrian, which was also written in cuneiform. They shared other cultural elements with their southern neighbors as well, such as religious concepts, divinities, and aspects of cult. A rich selection of lexical material appears in Assyria in the thirteenth and twelfth centuries as part of a large collection of literary and scholarly manuscripts found in the capital Assur, often called the library of King Tiglath-pileser I.²⁵ They start to show signs of the standardization that would characterize the first-millennium material. Tablets received a specific place and number in their series, which was indicated in the colophon; one such identification read, “third tablet of ki-ulutin-bi-še₃ = *ana ittišu*. A total of 232(?) lines. The original was from Nippur.”²⁶ Still, the evidence shows many differences with the later standardized versions, even of such common lexical works as Ura = *hubullu*, and there was much experimentation.²⁷ This era seems thus to have been important for the development of lexicography, but its exact effects are obscured by the fact that after 1100 Assyria entered a period with virtually no written sources, which lasted until the mid-ninth century.

It was only in the late eighth century that lexical materials reappear in the documentary record from Assyria, yet their widespread presence in both private and institutional contexts suggests that the preserved

collections had antecedents. In the north of the Assyrian Empire at the town of Huzirina in southern Turkey, the private library of the priest Qurdi-Nergal, his son, and students contained a selection of lexical texts, several of which were written out on large multicolumn tablets. The library contained a rich collection of other literary and scholarly materials, and dated to the century after 718. The short-lived imperial capital at Dur-Sharrukin, created by King Sargon II (ruled 721–705 BC), had a library in the temple of Nabû—the god of writing—on its citadel. The excavators found it mostly empty, probably because the content had been moved to the new capital Nineveh after Sargon’s death, but the scant remains included lexical materials. The Nabû temple library at Kalhu also contained a rich collection of lexical manuscripts, preserved for us when the temple was sacked in 614.²⁸

The seventh-century library of King Assurbanipal in Nineveh, whether it is regarded as one collection or several, provides the richest information on lexical material in first-millennium Assyria, as it does for all Mesopotamian literary and scholarly works. The total number of preserved remains is gigantic, around 26,000 tablets and fragments. A study of the Babylonian materials in it determined that lexical texts made up 3.5 percent of all literary and scholarly manuscripts, which may act as a guide for the entire library.²⁹ Assurbanipal’s librarians prepared versions with a distinctive ductus and layout, and identified them in the colophons as belonging to their master. These manuscripts provide us with the best records of the “standard” versions of almost all lexical texts from ancient Mesopotamia. Thus the massive lexical series *Ura = ĥubullu* is attested in a set sequence of twenty-four tablets, each focusing on one or more thematic subjects.³⁰ There was a strong sense of order. Not only had each tablet its number, but at the end of one tablet in the series the first line of the next tablet, the catch line, was written out. The various lexical series were organized in a fixed sequence. For example, *Ura = ĥubullu* followed the list of god names *An = Anu*, and preceded the series of professional designations *Lu = ša*. Moreover, the library contains commentaries of some of the series, which provide the Sumerian term, its original Akkadian translation, and an Akkadian synonym that reflects the spoken language. The commentary to *Ura = ĥubullu* begins with the line *mur-gud = imrû = ballu*, “fodder,” which explains the 28th line of the first tablet of *Ura = ĥubullu*. The commentary itself is attested in various recensions, one of which was six tablets long and proceeded from commenting on the final tablet (no. 24) of *Ura = ĥubullu* to elucidating entries of the series *Lu = ša*.

Similarly, in parallel with Sumerian-Akkadian lexical texts, a two-column synonym list came into being, which gave outdated Akkadian and some foreign words in the left column and up-to-date Akkadian explanations in the right one. Such a tool was needed because of changes in Akkadian language use. The list was entitled *malku* = *šarru* and included eight tablets. Assurbanipal's librarians were not the sole forces behind the standardization and innovations, certainly not all of them. The earliest preserved manuscript of *malku* = *šarru*, for example, comes from Dur-Sharrukin and states that it was based on originals from Babylon, Borsippa, and Assur, using many tablets and writing boards to prepare it.³¹ Assurbanipal's collection does, however, provide us the best evidence for the first-millennium material.

Assurbanipal's collection is so well preserved because when in 612 Medes and Babylonians destroyed the buildings in which it was kept, they sealed the clay tablets in its ruins. The sack of Nineveh was not a hasty and thoughtless act in the heat of battle, but a systematic annihilation of the city and the monuments that celebrated its earlier inhabitants. The victors went through the palaces and identified the representations of the Assyrians they most despised because of past actions and defaced them, cutting out eyes and ears.³² It is thus noteworthy that the Babylonians did not take advantage of Assurbanipal's massive project, and did not cart the library off home, as he and his predecessors had repeatedly done to Babylonian collections. So far only one Assyrian manuscript from the library of Assurbanipal has been found in Babylonia, and there are only a couple of instances where Assyrian originals seem to have inspired later Babylonian texts.³³ This suggests that the Babylonians were confident that they were in full command of literary and scholarly activity.

There is no doubt that Babylonian individuals and institutions had preserved and developed their intellectual heritage for centuries when they were living in the shadow of the Assyrian Empire. Assyrian references to the Babylonian origin of many of their tablets and writing boards make that clear. But virtually no evidence of Babylonian lexical writings has survived, except for a handful of tablets from Nippur in an archive that may date between 755 and 732. Most of those list Akkadian vocabulary, and with one exception they cannot be connected to the standardized lexical series attested in Assyria and later Babylonia. The situation changed dramatically after Babylon became the imperial center of the Near East. Temples sponsored this intellectual activity—as the Nabû temple had done in Assyria—but the king

and court certainly participated in it as well. Evidence for scribal schools reappears, and some 5000 school tablets, a good number of them inscribed with lexical material, survive from different Babylonian cities mostly dating between 600 and 300 BC, but with some perhaps as late as the second century AD. It is impossible to establish a more accurate date for the vast majority. Only a few contain an indication of when they were written; such indications include the reigns of the Babylonian King Nebuchadnezzar II (early sixth century), one of the Persian rulers called Artaxerxes (fifth or fourth century), and the Seleucid Philip Arrhidaeus (late fourth century), which shows that the origins and cultural backgrounds of the political regimes made no difference to the tradition. The tablets derive from Babylon, Sippar, Kish, Uruk, and Ur. The materials illustrate how lexical lists functioned in the school curriculum. In the first stage students wrote drills on large, multicolumn tablets, practicing the use of the stylus and copying out excerpts of syllabaries, god lists, and the first three tablets of Ura = *hubullu*. In the second stage they used smaller one- or two-column tablets, and practiced writing passages of literary texts, both Akkadian only and bilingual Sumerian-Akkadian, and of lexical series, especially Ura = *hubullu*. There is much variation. At the temple of Nabû ša ḫare in Babylon, for example, a set of exercises all starting with the entry um-me-a = *ummānu* contains no two tablets that use the same sequence of words. Akkadian was often the focus of study, and was taught with the same techniques used for Sumerian. Lists of verbal forms starting with the same key sign are common: for example, *a-ṣab-bat* / *a-ṣab-bat-ma* / *a-ṣab-bur* / *a-ṣab-bur-ma*, and so on.³⁴

Lexical texts were not only used for teaching. Complete versions of the series were preserved in the temple libraries. An investigation of all scholarly materials from later Babylonian libraries shows that their aim was to keep together the entirety of Sumerian and Akkadian wisdom,³⁵ and lexical texts were an integral part of that encyclopedic project. Marduk's temple library in Babylon, which existed continuously from the mid-seventh to the mid-first centuries BC, must have contained a treasure trove of scholarly materials, including all current lexical texts. When scribes wrote to King Assurbanipal that there was only one copy available of a Sumerian glossary he wanted and that it was in Marduk's temple,³⁶ they were not making up stories.

A new type of lexical material appeared in the first millennium, commentaries that gave synonyms, graphic variants, etymological or semantic explanations, and quotations from classical texts. They are the

only lexical texts that do not use a columnar format, and can be so complex that they seem more exercises in obfuscation than attempts to elucidate. For example, one tablet, described by its modern editor, a very experienced epigrapher, as having the most minuscule script he ever saw, contains this line:

li-id NI *li-ti-ik-tu*₂ : GIŠ.MAŠ : a-a ^den-lil-la₂ ^{gišr}ŠA₃.ME^l-da mu-un-
tu[m₂ . . .] umun - ka-nag-[g]a₂ ^{gišr}ŠA₃.ME^l-da : *ma-šu₂-u ša₂*
qaq-qad ŠE.GIŠ.I₃ *ana da*-[. . .]

The passage explains the entry from a syllabary that the Sumerian sign NI, when read *li*d, means *litiktu* in Akkadian, that is, “true measure.” The commentary expands on this relatively simple lexical equation by introducing a number of other Sumerian words that indicate “measure.” It quotes from a known Sumerian liturgical text, but replaces the words for “measure” found there with the unusual and complex form ^{gišr}ŠA₃.ME-da. The entry ends with an obscure Akkadian sentence that seems to refer to yet another Akkadian word for measure, *māšu*. This is the work of a learned scholar who knew Sumerian and Akkadian literature well, and apparently used the relatively simple lexical list to show off his knowledge. That his work was meant to be explanatory to an inexperienced reader is very doubtful.³⁷

It is clear that the Babylonian scholars continued to work on this and other materials even in times of political instability, such as in the centuries before the creation of the Neo-Babylonian Empire in 625. Marduk’s temple in Babylon suffered destruction at the hands of the Assyrian King Sennacherib in 689, but was soon rebuilt, and continued to exist without major disruption until mid-first century BC. Assyrian, Babylonian, Persian, Seleucid Greek, and Parthian courts all tolerated—and probably also encouraged—its scholarly activity. Similar work took place in other temples at Babylon, and at Uruk, Sippar, and Borsippa. The Babylonian scholars made no real efforts to adjust their practices for the benefit of foreign rulers, but for one possible exception, which suggests that they were not completely living in an ivory tower. In the period when the heavily Hellenized Parthians ruled Babylonia, there appeared clay tablets with excerpts of Babylonian literature and lexicography on one side and Greek transcriptions—not translations—on the other. They were school exercises that in the case of lexical material provide phonetic Greek renderings of both the Sumerian and the Akkadian entries. For example, the line from Ura = *hubullu* tablet 2 that states that Sumerian pa₅-lal is Akkadian *a-tap-pi*, meaning “small canal,”

has the Greek transcription *phalal athaph*.³⁸ So the purpose of the Greek entries differed from the Hittite, Hurrian, and other translations attested before: the texts deal with the pronunciation of words, not the meaning. They parallel the syllabic spellings of Sumerian logograms in earlier lexicographic writings, but do so in a different script. This is the only time in the entire history of the Babylonian lexical corpus that two scripts were used. There is debate about who wrote these tablets: people who knew Greek alphabetic writing, or people for whom cuneiform was the standard. The latter may be more likely, but one wonders for whose benefit they transcribed the cuneiform. The date of this work is unclear as well. The so-called Graeco-Babyloniaca were found in Babylon with Babylonian literary tablets of the late second and early first centuries BC, and the earliest exercises were probably written in the first century BC. The date of the final tablet preserved is controversial. Some scholars suggest the second if not third century AD; others are more cautious and think of the mid-first century AD.³⁹ Even at that time knowledge of cuneiform was extremely rare, and it is inconceivable that someone familiar with it used these tablets to teach how to write Greek letters. They have no obvious purpose.

What conclusions can we draw from this survey, however incomplete? Lexical material was part and parcel of all scribal activity with Babylonian cuneiform. Whoever learned to write that script encountered lexical texts. In our modern age, with national school curricula and uniform ideas on how to turn children into literate people, this may not seem so strange, but I should stress again how unique this genre of writing was in the ancient world. Students elsewhere acquired scribal skills in different ways. When we look at the mass of evidence on ancient Babylonian lexicography, we face what seems almost a contradictory situation. On the one hand, there is great consistency and continuity. Many, but not all, series were present in one form or another everywhere and at any time. Take the thematic series *Ura* = *hubullu*, for example. Parts of it appear from the early second millennium to the very end of cuneiform writing when Greek transcriptions were added, some 2000 years later. We find it in all Babylonian and Assyrian sites with lexical material, as well as in most of the so-called peripheral sites. In its standardized version of the first millennium it was a massive series with close to 10,000 entries divided over twenty-four tablets, and its position in the sequence of lexical texts was fixed. It seems that this collection would have been on the shelves of any deposit of learning that took itself seriously. But when we look at the

evidence in more detail, we see a startling variability. Naturally the long time span and enormous geographical spread, both crossing many cultural boundaries, explains some of the change. But variation appeared at the same time and in the same place. At Ugarit in the thirteenth century, for example, Ura = *hubullu*'s tablet 22 existed both in unilingual and bilingual forms, while at Assur in the twelfth century various recensions of the series were in use. Although Ura = *hubullu* was so encompassing and seemingly authoritative, it coexisted with parallel lists covering the same subject matters—for example, a list of stones that combined excerpts from several Ura = *hubullu* tablets in Neo-Babylonian times.⁴⁰ While the various Babylonian scribal centers shared many lexical texts, there are series that were used in one of them only, such as *ana ittišu*, which seems to have originated in Nippur, from where it reached Assyria, while no other Babylonian cities used the text.⁴¹ Each series probably has its own history and manuscript tradition, which we cannot reconstruct in full. The intellectuals of some cities seem to have been more highly regarded than others. In the second millennium Nippur certainly stood out as a center of knowledge on the Sumerian language, and models created there inspired many so-called peripheral versions of lexical lists. In the later first millennium Babylon may have taken over that role. No one who encountered lexical material was prevented from changing it, however, or for that matter from developing something that paralleled the original. We know none of the authors by name, nor how the creative work happened; we can imagine perhaps that small groups of them sat around discussing potential readings and translations of Sumerian words and how to group them into the building blocks of lengthy lexical series.⁴² The enormous ingenuity that all these literati displayed while working in the same tradition is remarkable, and sets Babylonian intellectual practices apart from other ancient scholarship.

An Example: Lists of Human Beings

To illustrate the longevity and popularity of lexical lists, as well as how much their contents could change, I will describe what we know about the thematic series that treated topics relating to human beings, including professional designations, kinship terms, social classes, and states of the body and mind. A list of this nature appears among the very first preserved records from Uruk, attested in five manuscripts from the so-called Uruk IV period, and it was the most popular lexical text in the

subsequent Uruk III period, from which 185 manuscripts of it are preserved.⁴³ Although these are all fragmentary, it is clear that they followed the same sequence of terms as the much better preserved manuscripts from the third millennium, when the use of the series was widespread throughout Babylonia and Syria. The list enumerated professional designations, seemingly in an order that reflected the social hierarchy, although this is debated. The first entry, for example, the rather enigmatic title *namešda*, was in later times equated with the Akkadian word for “king.”⁴⁴ This structure persisted throughout the third millennium, when the most popular list of terms relating to humans (which holds the designation ED Lu A or Standard Professions List in modern scholarship) was 129 lines long, ending with craftsmen like potters and reed workers.

The longevity and widespread use of the list is remarkable; it appears essentially in every documented period and in the large majority of sites where cuneiform tablets were found. This is true both within Babylonia and outside that region. From the middle of the millennium are preserved several large multicolumn tablets that permit a reconstruction of the full version of the text at the central Babylonian cities of Abu Salabikh (ancient name uncertain) and Shuruppak. The care with which these tablets were made and the decorations on some of them—albeit simple—suggest that they were considered valuable objects. The great popularity of the Standard Professions List is obvious from manuscripts found at Ebla in western Syria, which closely parallel the Shuruppak and Abu Salabikh versions. At Ebla there also existed a vocabulary that listed about half of its entries along with the names of the signs, essentially a syllabic spelling of the Sumerian forms with the Semitic ending *um* added on. Thus *sa-la-um* appears as the name of the Sumerian word *sila*₄, providing the scribe with the means to determine the pronunciation of the Sumerian logogram as if it were a Semitic word. The recent find of a fragmentary tablet that originally contained the entire text at the north Syrian site of Nagar reaffirms the list’s pervasiveness.⁴⁵

Babylonian scribes continued to write out the list, which was the most prevalent of a small set of by then ancient texts regularly copied out on prisms and cylinders, a format chosen to give them distinction. This activity persevered in the early second millennium, even if at that time a new list of terms referring to professions appeared, much longer than the Standard Professions List, and making that list obsolete in teaching. There are multiple manuscripts that reproduce in full the Standard Professions List, with 129 entries in identical order, using

blocks of 19 lines each, including several seven-sided prisms with 19 lines on each side (with four blank lines at the end). Scribes interpreted the text, which used a language that was archaic to them, and sometimes they added syllabic Sumerian explanations to the original entries—never on the prisms or cylinders, however. Examples of this work were found throughout Babylonia, not only in the great scribal center of Nippur, but also in smaller sites, such as Kisurra. They show that 1500 years after the list originated some scribes at least wanted to be able to read and reproduce a series of professional designations many of which no longer were in use, and that they standardized its edition. To them it was a meaningful text, worthy of preservation and explanation.⁴⁶

In the early centuries of the second millennium a new list of professions came into use in schools, attested in more than 150 exercise tablets from Nippur and in much smaller numbers at other Babylonian sites (Ur, Uruk, Isin, Kish) and outside Babylonia at Susa. This list, which we call OB Lu, has 846 entries in its modern reconstructed form. Although professions remain its primary concern, the authors readily added on terms with related meanings. After entries for “farmer,” Sumerian *engar*, for example, followed a sequence of words including the verb “to sow” (*uru*₄) and various terms for furrows (*absin*₃) (lines 445–56). Similarly, after words for male and female musicians, the text lists a series of types of songs (lines 586–600).

In the Nippur school curriculum the study of OB Lu preceded that of OB Izi, a word list whose primary organizing principle was the shape of the cuneiform signs. This curricular sequence inspired the creation of manuscripts that combined parts of OB Lu with parts of OB Izi, although the series were of a very different character.⁴⁷ Although bilingual entries appear in one manuscript from Nippur only, literary texts of the period explicitly acknowledge the list was bilingual, calling it Lu = *ša* or Lu = *šu*.⁴⁸ School tablets from Susa in western Iran show how students there learned three elements: they wrote down the Sumerian logograms, their syllabic renderings, and Akkadian translations. For example, this information appears on an exercise tablet that taught two priestly titles:

išib	(logogram)
gudu ₄	(logogram)
e-ze ₂	(syllabic Sumerian)
gu-du	(syllabic Sumerian)

<i>e-el-lu-um</i>	(Akkadian)
<i>u₃ pa₂-aš-šu-um</i>	(Akkadian) (English translation: “ritually pure and anointed”) ⁴⁹

While school tablets from Babylonia never provided these three elements, we can imagine that students there too had to know the same information for each word.

Beside OB Lu, Old Babylonian schools used a bilingual list of terms regarding humans and human attributes, also mostly attested at Nippur. It was called Lu-azlag = *ašlāku*, “fuller.” Attested in several recensions, it provided a long list of terms all of which began with the sign *lu₂*, “man,” or *SAL lu₂*, “woman,” and instead of focusing on professions it enumerated human qualities or states of being. The entries include entire phrases, such as *lu₂ šag₄ ħul gig ab-šeš₄-a* = *ša li-ib-ba-šu ze₂-ru-tam pa-aš-šu*, “whose heart is full of hostility.”⁵⁰

As mentioned above, after 1600 lexical material from Babylonia became very scarce, but both OB Lu and Lu-azlag = *ašlāku* survived outside Babylonia. Multiple versions co-existed for both. OB Lu continued to be copied in various editions at sites like Nuzi, Emar, Ugarit, and Hattusas, both in bilingual and monolingual form and sometimes with a pronunciation column for the Sumerian.⁵¹ Versions of Lu-azlag = *ašlāku* excavated at the Hittite capital Hattusas provide even more information: on four-column tablets they supply for each logogram a syllabic spelling and Akkadian and Hittite translations. For example:

SUMERIAN	SYLLABIC				
LOGOGRAM	SUMERIAN	AKKADIAN	HITTITE	(ENGLISH)	
<i>lu₂ aš-ĥab</i>	<i>lu aš-ĥa-ab</i>	<i>nu-ʾ-u₂</i>	<i>dam-pu-pi-iš</i>	(scoundrel) ⁵²	

More drastic, however, were the changes to the list that first appeared in the late second millennium at Assur and became standard in the first-millennium sources throughout Assyria and Babylonia. Scholars altered the OB Lu list in two ways: they removed terms that did not directly relate to human beings, and introduced a large number of synonyms, making the list much longer. Thus there are twenty-two entries for a type of official called *sukkal* and twenty-seven for another official called *ša₃-tam*. At least two recensions existed: a standard one with four or five tablets, containing more than a thousand entries in total, and an abbreviated one most often written over two tablets, the second of which also provided extracts of Izi.⁵³ Many manuscripts add Akkadian

translations. The list remained in use into the Seleucid period, and many generations of students were forced to copy excerpts from it.⁵⁴

From this overview it is clear that there was a profusion of lists dealing with the subject of humans and professions, which is perhaps not that surprising, as the topic is very varied, and professional designations do change a great deal over time.⁵⁵ Yet, the attitude displayed is typical of Babylonian lexical scholarship in general: basic ideas survived for very long periods and spread wherever people used Babylonian cuneiform, but there was always freedom to alter and modify the material. There are remarkable elements of continuity. The Standard Professions List survived from the start of writing until the early second millennium 1500 years later, when its terminology was outdated. The new list created in the early second millennium established ideas about the structure of the text and its place within the sequence of lexical works—after Ura = *hubullu* and before Izi—that would survive until the end of cuneiform writing. At the same time, however, throughout the history of the lists multiple versions existed, as well as other lists with overlapping contents. Working with what are in essence scant fragments of a vast corpus of manuscripts that were written in antiquity, we will probably never be able to ascertain the links among different recensions, versions, and editions. It seems that each teacher had the choice to change the order of entries, and that each scholar could add or subtract passages when compiling a complete manuscript. Our own editions use concepts like standard and deviant versions, but these are modern fictions based on one or a group of manuscripts that happen to have survived better than others. The short survey here shows that there was a confusing proliferation of versions of lexical lists and that the genre allowed for an enormous amount of change not only over time but also at different places during the same time. Essentially everyone who worked with these lists had the opportunity to tinker with them, and at times major revisions occurred. Despite this apparent flexibility, however, it is clear that basic principles guided the formulation of these texts. It is to these principles that we will turn next.

CHAPTER 3

Constructing Reality

How were lexical lists composed? What were the guiding principles that authors followed when they developed these enormous compilations, which could include thousands of entries? On the surface they may look very simple. After all, they are dictionaries, and most dictionaries string together entries in what seems a rigid pattern. Large lexicographic works like the OED at least provide the pleasure of discovering ancient and arcane usages by past or present authors, or unexpected etymologies, but concise dictionaries just list words alphabetically with their meanings, or, in the case of foreign-language dictionaries, a selection of translations. The structure seems tedious and unimaginative, but it is good to remember how Roland Barthes likened dictionaries to poetry, both “places where the noun can live without its article—and is reduced to a sort of zero degree, pregnant with all past and future specifications.” If Barthes had known Babylonian lexical lists he might have been even more fascinated by the lexicographic genre. For good reasons, the lists have been called an unrecognized art form.¹

A Structural Analysis

I propose here a straightforward semiotic analysis of the Babylonian lexical lists, based on Saussure’s linguistic model. Since they are two-dimensional—structured on two axes, the horizontal entry and the vertical succession of entries—they are eminently suitable for a structuralist reading, syntagmatic and paradigmatic. Horizontally, each entry constitutes a meaningful unit that makes up a full statement, even if it is a single word. Over time, these entries became more elaborate, adding information that a highly educated reader of the lists may not have needed. But then today, too, dictionaries can provide a mass of detail

that most users do not consult. Vertically, every entry presents a choice made at the expense of other options, and that choice was not guided by a dogmatic principle like alphabetic order. The Babylonian authors used a variety of approaches to establish a sequence of terms, which make the lexical lists ideal material for a paradigmatic analysis.² Whereas disorder often seems to rule, there is always logic behind the succession. Recently, scholars who have categorized these principles began to acknowledge that authors often created fantasy words, valid within the system but of no practical use, if not meaningless. Less acknowledged, but also clear, is the fact that on the syntagmatic level, too, there was a freedom that permitted the creation of entries that surpassed the boundaries of the real. My analysis will start on that level.

The Syntagm

However brief it was, every entry in the lexical list made up a complete statement and had to make sense. The nature of the statements developed over time, and entries became longer and more explicitly informative, which suggests that the relationship between the users of the lists and their core subject matter, the Sumerian logogram, changed over time. From people who wrote solely in the Sumerian language employing logography alone, they became writers of multiple languages who knew other ways of expressing themselves in script with the use of syllables instead of word-signs. This does not mean that they became less knowledgeable of Sumerian logography. At the same time that entries in the lexical lists became more exhaustive, there was an increased use of logograms in cuneiform writing in general. Authors of Akkadian royal inscriptions of the first millennium, for example, used many more Sumerian logograms than those of the early second millennium, and habitually they showed off their knowledge of obscure sign values. For them the lexical lists, with their information on pronunciations and meanings, were vital tools that laid out the options they had for expressing ideas, options that were often developed in the context of the lists rather than in practice. The use of esoteric values was not intended to make the reading of texts more difficult—although this may have been a side effect—but more meaningful, as I hope to show later on in the chapter.

The core constituent of the lexical entry was the Sumerian word, stripped of all tangential elements, reduced to a “zero degree.” The earliest lexical lists, from the late fourth and third millennia, as well as some later ones, only recorded that element, and were essentially se-

quences of words, which were opaque to anyone not fully trained in Sumerian cuneiform writing. They did not indicate the aural shape of these words or explicate their meaning, so modern scholars imagine that teachers orally provided that information; “The lexical lists are only a skeleton, the flesh of the oral teaching is gone forever.”³ But their authors must have seen them as meaningful and useful on their own.

At the latest in the mid-third millennium, lexical lists began to circulate in regions where no Sumerian was spoken, so it is not surprising that suggestions of pronunciation and translation were the first elements to be added in writing. Initially, the placement of such information within the syntagm was not fixed. At Ebla in western Syria, where we find the oldest evidence of this work, authors added translations into the local language to the lists before or after the relevant Sumerian logograms, as if they constituted separate entries.⁴ Centuries later in the early second millennium, in Babylonia itself the earliest written clarifications in lexical lists appeared first in the form of glosses, that is, incidental explanations inserted when scribes seem to have needed special assistance to understand the Sumerian text. The physical layout often accentuated the marginal character of the information, written out in smaller signs and raised above the line. The gloss could even be inserted in between the Sumerian sign’s component parts. *nag^{na}-ga₂-tu-ub pa-ša₂-ru-um* *dub₂*, for example, provides both the pronunciation (*nagatub*) and the Akkadian translation (*pašārum*) of the Sumerian verb meaning “to exorcise.”⁵ But when in the early second millennium the need was felt to give such information for every Sumerian logogram, a format emerged that was to last until the end of lexical scholarship. Each entry appeared horizontally on a single line, with all the information written out in equal size. Every line in the list thus formed a perfect syntagm.

Soon scribes added more information; this was increasingly so as lexical materials spread all over the Near East in the second half of the second millennium as scholarly tools for speakers and writers of many languages. Not only was the pronunciation of the Sumerian logogram and its Akkadian translation important, but also the meaning in various other languages. In its fullest form a lexical entry read as follows:

(0) I - (1) tak-tak - (2) TAK₄.TAK₄ - (3) tak minnabi - (4) *ezēbu* - (5) *arḫa dalumar*.

One could translate this into English as “(0) entry: if (2) the Sumerian logogram TAK₄.TAK₄, is (1) read tak-tak—it is (3) called ‘double (minnabi) tak’ and means in (4) Akkadian *ezēbu*, ‘to abandon,’ and in (5)

Hittite *arḫa dalumar*, ‘forsaking.’”⁶ Most lists gave only a selection of these elements, but a complete syntagm could include all of them.

What did these elements mean, and what information were they supposed to provide to the user? In good Mesopotamian fashion, each line started off with a vertical check mark (0) to indicate a new entry in a list, a practice common in other writings as well. To the left of the core element in the syntagm, that is, the Sumerian logogram (2) appeared a transcription in simple syllabic signs (1) to provide a pronunciation guide. Using the lexical treatment of the very elementary Sumerian word for “king,” LUGAL, as an example, we find its syllabic rendering *lu-gal* in several lists.⁷ A small number of lists provided a reading in a discrete sociolect of Sumerian called Emesal, the use of which seems to have been restricted to certain cult personnel and perhaps women.⁸ The Emesal pronunciation of LUGAL was *umun*. Following the logogram, lists sometimes gave the name of the sign (3), an element that clearly indicates how cuneiform signs were subjected to scholarly analysis. Signs had names to identify them whatever the context, and to enable a teacher or the like to refer to them in the abstract. In that sense they were no different from the names given to alphabetic letters, such as *aleph* or *alpha*. Although such sign names were rarely included in lexical lists before the first millennium, they must have been in common currency early on. Omen texts of the early second millennium used them to clarify the shape of ominous marks, such as discolorations of the liver: “If the view is like the sign *ḪAL*—the end of the ruling dynasty.”⁹ Their first appearance in lexical lists was in the Ebla corpus, and in the second half of the second millennium they were recorded at the non-Babylonian sites of Hattusas, Emar, and Assur, although their use was restricted to just one type of syllabary in each of the three cities. Only in the first millennium did sign names appear commonly throughout Babylonia and Assyria. They had various formulations. They could render the logogram more or less phonetically in single or repetitive form, for example, *babû* for BA. They frequently commented on the graphic shape of signs: they could indicate that they were another sign doubled, tripled, or quadrupled (e.g., GURUN = four times IDIM); that the sign was slanted (e.g., GAN₂-*tenû*) or unfinished (e.g., KU₇ = UŠ-*nutillû*), or that it was another sign with added wedges (e.g., DAR = SI-*gunû*) or otherwise modified. Sign names thus constituted an analysis of the signs’ appearance. To return to our example, the sign name for LUGAL was *lugalaku*.¹⁰

So far all the information in the syntagm deals with the Sumerian logogram and is monolingual. But logograms could be used for writing down other languages, and their translations were thus crucial as well. Since Akkadian was the chief written language in the cuneiform world, translations into Akkadian (4) were the primary concern of most lexical lists starting in the early second millennium. The Akkadian for LUGAL was *šarru*, but with the evolution of that language over time, *šarru* itself became archaic and unclear, and some first-millennium lists clarified it with the more up-to-date *malku*. Outside Babylonia people who wrote in cuneiform using Sumerian logograms spoke and wrote languages different from Sumerian and Akkadian, and lexical lists found outside Babylonia at times included further translations (5). At Hattusas local scribes added Hittite or Hurrian, at Ugarit Hurrian or Ugaritic, or, very rarely, both, and in other Levantine sites West Semitic.¹¹ LUGAL thus appeared in Ugarit's lexical lists with the Hurrian translation *ewerni* and the Ugaritic translation *malku* when its Akkadian equivalent was *šarru*, "king." When the Akkadian was *bēlu*, "lord," the Hurrian was *ewiri*, the Ugaritic *ba'aluma*.

The multiple Akkadian translations of LUGAL in the last example, *šarru*, "king," and *bēlu*, "lord," remind us of the polysemy of Sumerian words, something we can expect in bilingual dictionaries. In addition, however, most logograms also had multiple readings, which was a special feature of the cuneiform writing system. The so-called syllabaries, in particular, listed these multiple options in succession, as, for instance, in a passage I quoted before: TUG₂ when read mu₄, meant "to clothe oneself"; when tu₆, it indicated a garment; when pronounced nam, it denoted "prince"; and when read umuš, it could either mean "reason" or "counsel."¹² Every alternative received equal attention as a syntagm in the lexical list, a work that looks very authoritative and reliable.

Whenever we today consult a bilingual dictionary we have no doubt that the suggested translations for a word are all possible, even if sometimes rare, and we can approach Babylonian lexicographic writing with the same respect. It is clear, however, that the construction of the lexical syntagm was not just informed by actual usage in writing, but that the authors of the entries created artificial readings and meanings of logograms. We can reconstruct some of the principles that guided them. For example, with compound logograms made up of two or more signs that also existed independently, each of the elements could be assigned the pronunciations of the entire compound or of its parts.

Thus KAL alone could appear with the phonetic readings of the compound A.KAL. Similarly, the isolated elements could be listed with the Akkadian translations of the entire compound. Similarly, with respect to meaning, homophonous signs shared all of the Akkadian translations. TU, which appeared in a lexical text with the pronunciation *tur*, thus obtained meanings of the logogram TUR, such as “baby,” and the adjective “small.”¹³

Lexical texts upheld the Babylonian belief that Sumerian and Akkadian were mirror languages that behaved the same way grammatically, but that was a fiction. The languages were linguistically very distinct, and enforcing the parallelism could create entirely imagined, if not oxymoronic, expressions. That was especially true in lexical texts that provided grammatical verbal paradigms. The authors modified Sumerian verbs by adding elements, always providing Akkadian equivalents, which led to absurd constructions, such as “he is going away from us with us.”¹⁴ Many of the practices are difficult to explain without becoming very technical, but the overall outcome is clear: there was a proliferation of pronunciations and translations of Sumerian terms, which was the result of the creativity of ancient lexicographers and not of genuine practices in contemporary writing. A scribe could turn to such lexical fantasies to write a passage in another type of text, showing off learnedness, but producing what looked like nonsense when everyday reading practices were applied. The key principle, however, was that lexical creativity expanded reality in its written form.

The Paradigm

The syntagm of lexical lists had fewer than ten elements to it; the paradigm could easily stretch into the thousands. One first-millennium list of basic signs, with their pronunciation and Akkadian translations, called Aa = A = *nâqu*, had some 14,400 entries spread over 42 tablets. In the same period the list of Sumerian terms for objects, animals, and numerous other phenomena with multiple Akkadian translations, Ura = *hubullu*, had more than 9700 entries written over 24 tablets.¹⁵ A major reason for the length is that each distinct pronunciation or translation was entered on a new line—and the authors were eager to multiply the numbers.

The biggest challenge facing the Babylonian lexicographers—and the key to our understanding of their perception of the lists—was how to organize the entries. No simple principle was available, as there was no fixed order of cuneiform signs, nothing like the alphabet that orga-

nizes our dictionaries. For a long time the idea that the Babylonian lists provided an encyclopedic classification of physical reality dominated the modern scholarly approach to them. In the 1930s the German Assyriologist who authored one of the great dictionaries of the Akkadian language, Wolfram von Soden, encapsulated this view in the concept of *Listenwissenschaft*: a desire to order reality in list form, an *Ordnungswille*, which reflected what he called the Sumerian frame of mind.¹⁶ In his opinion, empiricism drove the formulation of the lists, and the composers ordered everything that existed thematically. Thus they divided domesticated animals into sheep, goats, and cattle, and subdivided each group according to sex, age, color, and other criteria. The enormous diversity of the world that surrounded the authors explains why the lists were so extensive. Unlike modern dictionaries, which expect users to combine separately listed nouns and adjectives, Mesopotamian lexical texts assigned an entry each to a white sheep, a black sheep, a two-year-old sheep. Von Soden was very critical of the Babylonian classifications, however, and considered them unscientific. He noted that they grouped together, for example, animals that modern science sees as clearly distinct, such as felines, dogs, and badgers, and many other groupings did not fit the categories in use in the Europe of his day. Moreover, he saw no refinement in the ancient system, only a repetition of established classes over the thousands of years that the lists existed. Thus, in von Soden's opinion the lexicographers lacked competence in biology, geography, mineralogy, and other sciences.

The view that lexical lists were encyclopedic taxonomies approaches them from a totally wrong angle, however. They are not the product of scientific inquiry into reality, but studies of the written word.¹⁷ Lexical lists taught people what the possibilities of the writing system were and how they could expand written vocabulary, even inventing words without a referent in reality. Several criteria determined the sequence of entries, all of them active at the same time, although individual lists showed a preference for one principle over others. The two main choices focused either on the written or aural forms of the words (*les mots*) or on the physical realities they expressed (*les choses*).¹⁸

Les Choses

Not surprisingly, compilers of the lexical lists were aware of the physical reality of many of the natural and cultural phenomena they recorded, and as all humans do, they grouped such items into classes. In the debate about whether classifications are cross-cultural universals or

culturally specific, I would side with the second opinion. But, as G.E.R. Lloyd has argued in his comparison of ancient Greek and Chinese classifications, the radical opposition between the two points of view is false.¹⁹ When specific criteria are used to construct classifications, some results are more accurate than others. The principles used do reflect a way of life and a perception of the world. The ancient Babylonians who formulated lexical lists were sedentary agriculturalists and world history's first creators of an urban society, a form of society that has now become universally dominant. Thus, despite the enormous differences between our culture and theirs, we share basic interactions with the environment, natural or created, and we can recognize many of their associations as logical. For example, the classification of animals in Babylonian lexical lists overlaps with that of modern-day agricultural societies. We are not surprised when we see that the massive series *Ura* = *hubullu* in its first-millennium form devoted two tablets with about 400 entries each to animals grouped into domesticated (tablet 13) and wild (tablet 14) ones. They listed mostly four-legged animals that live on land—birds and fish were dealt with separately in tablet 18 but included some other species like butterflies and flies among the wild animals. Yet, although the distinction domesticated–wild may seem clear-cut, the tendency to keep terms that share cuneiform signs together led to disruptions of even that basic thematic pattern. Pigs appeared with the wild animals (tablet 14, lines 156–80), although some types included were obvious domesticates (e.g., the fattened pig, Sumerian *šaḥ-niga*). We actually can see in the various editions of the series *Ura* = *hubullu* that authors struggled with this issue and explored different positions for the pig section, at one point placing it between the domesticated and wild segments. But its location in the midst of wild animals became standard in the first millennium, because the terms for domesticated pigs used the same core cuneiform sign (*šaḥ*) as those for wild ones, and the authors apparently thought it more important to group them together on that basis than to distinguish the animals by their use to humans. For similar reasons, it seems, dogs appeared with wild animals because the core sign *ur* was also used to write out terms for lions (*ur-maḥ*) and wolves (*ur-ba-ra*).²⁰

The sequences of entries regularly display paradigmatic patterns derived from the realities of daily life. Thus when *Ura* = *hubullu* tablet 13 listed domesticated animals, the degree of the species' importance to the Babylonian farmer dictated the order, and parallels what appears in the numerous surviving administrative accounts. The ranking starts

with ovids, and then continued with caprids, bovids, and finally equids, primarily donkeys. The horse appeared amidst donkeys, because its written name included the same basic sign, anše.²¹ Gender hierarchy topped practical utility: male domesticates preceded female ones (except in the case of goats), reversing the order used in actual accounts of herds, which listed ewes before rams, cows before oxen, etcetera. But the primacy of sheep, by far the most common and economically important domesticated animal in ancient Babylonia, is clear in both lexical and administrative texts. The rationale behind the sequence of wild animals in Ura = *hubullu* tablet 14 is less obvious, although we can understand why certain groups succeeded one another. Hyenas and foxes followed dogs because of their physical resemblance, for example. But the written word played an important role as well: the lion (ug) followed the bear (az) because the cuneiform signs to write the terms looked very much alike. Another hierarchy structured the list of professions, described in detail in the previous chapter: chains of command in actual practices determined the offices' order in the lexical material.



ug



az

Multiple paradigmatic sequences from daily life appeared in the thematic classification. A list of body parts surveyed them from head to toe, every entry ending with the possessive adjective “my” (the Sumerian suffix -*ĝu*): ugu-*ĝu* for “my cranium,” ugu-dig-*ĝu*, “my brain,” ugu-dilim₂-*ĝu*, “the inside of my cranium,” saĝ-du-*ĝu*, “my skull,” saĝ-ki-*ĝu*, “my forehead,” and so on.²² The logic is obvious and not surprisingly appeared in medical texts and incantations describing parts of the body afflicted by demons as well; the Romans called the sequence *a capite ad calcem*. Clearly related to the thematic organization was what modern scholars tend to call semantic organization. For example, in a first-millennium list of compound signs, those indicating the young donkey, the heir, and the adjective “restless” were listed together because they all referred to youth.²³

While the Sumerian words determined most of the attested sequences, Akkadian translations sometimes explain why certain connections were made, even if they were not written out in the preserved manuscripts. Multiple Sumerian words that had the same Akkadian equivalent were often listed in sequence.²⁴ And it is only because of the Akkadian translations that we understand why the very different Sumerian terms EN.NUNUZ.ZI ^dŠEŠ.KI and SAL.LAGAR appeared together.

Both referred to closely related priests, *ēnum ša Nanna* and *ēnum ša Enki*, “en-priest of the god Nanna” and “en-priest of the god Enki.”²⁵

Les Mots

Lexical lists were written texts, and the written manifestation of a word was their primary interest. As the analysis of the syntagm showed, each entry explained how one read and pronounced a single written sign or a combination of signs and what the meaning was in Akkadian and sometimes in other languages. This concern could extend to writings of the distant past that used archaic forms of cuneiform signs not easily recognizable—as everywhere, the paleography of writing changed over time in Babylonia, and several lists from the first millennium listed the ancient forms alongside later equivalents.²⁶ From its invention the lexical list used the written form as an organizing principle and considered several aspects of that form. Oftentimes the initial graphic element dictated a sequence, a characteristic we call acrography. Thus lists of compound logograms grouped together those that started with the same simple component, even if there were multiple ways to pronounce it. The list Izi, for example, started with the sequence izi, “fire,” ne, “brazier,” didal_x, “embers,” all different readings of the same sign.²⁷ Although acrography most often dictated the order, in essence the sharing of any element justified placing two terms in succession. For example, when two compound signs contained the same elements but in inverted order, they could be listed together, and even the general structure of compound signs by itself inspired the creation of a series, such as UD. UD, KU₇.KU₇, and MI.MI.²⁸ Different signs that looked alike were strung together as well. As we saw above, lions (ug) followed bears (az) in Ura = *hubullu*’s tablet 14, because the signs to write the words were so similar.

Words have an aural form as well, and from very early in the taught curriculum students were made aware that signs that sound alike may not look alike. The first step in instruction that involved real cuneiform signs forced students to write out the sequences tu-ta-ti, nu-na-ni, bu-ba-bi, and so on. Such rhymes must have stuck in their heads, and not surprisingly appeared in fully developed lexical lists as well. At Ebla a long list entitled eš₂-bar-kin_x contains a series of signs starting with šu followed by sections starting with ša₃, še, and finally ši.²⁹ More complicated assonance also appeared: in a list of god names SIG₄ preceded Gu₂-la₂, because SIG₄ has the reading Kulla.³⁰

Modern scholarship loves to classify, and we distinguish thematic from acrographic lists, although the ancient Babylonians give no indication that they saw them as distinct. In their grand sequence of lexical series the acrographic list Izi followed the thematic Lu = ša, and several manuscripts combine the two.³¹ From the start of the lexical tradition all principles could be at work in a single list. The clearest early example of combining various organizational rules comes from Syrian Ebla in the mid-third millennium. The list eš₂-bar-kin_x, just mentioned, contained 1116 lines that were grouped into 93 sections.³² Many of them put together complex Sumerian logograms that started with the same sign. The first section, for example, listed 129 entries beginning with the NI₃-sign, assembling words with very diverse meanings. The overall sequence of the list's sections was determined by the graphic similarities of the beginning signs: those starting with u₂ were followed by those with sa, then with e₂, and finally with giš. As said before, phonetic resemblance also played a role: signs starting with šu were followed by ša₃, še, and ši. Finally, semantic likeness also played a role: signs starting with šu, "hand," were followed by those starting with a₂, "strength"; those with ud, "light," at the start were followed with words starting with an, "sky," and then by mi, "dark."

 u₂  sa  e₂  giš

Reading through lexical texts, it is clear that any sequence could be interrupted on the basis of another principle. A scholar could be listing words starting with the same cuneiform element and suddenly insert a synonym that was graphically very dissimilar. For example, in a very lengthy list of names of buildings from the early second millennium, a sequence of some 200 entries starting with the Sumerian word e₂, "house, temple" was interrupted twice, once for the terms for "chamber" and "shrine," the second time for ten terms with meanings such as "sanctuary," "assembly halls," and "square."³³ Some connections were very opaque. In an early-second-millennium list of place names (Ura = *hubullu* tablet 21) the scribe jumped from uru-ḫul-la^{ki}, "destroyed city," to Ḫu-ḫu-nu-ri^{ki}, the name of a city in Iran. We can only understand this move because we know that the phrase "the year that the city Ḫuḫnuri was destroyed" identified the seventh regnal year of King Amar-Suen of Ur.³⁴ Doubtless many other such associations remain hidden to us because of our ignorance.

There is no indication at all that the Babylonians considered one system of classification superior to another. Thematic, semantic, aural, and graphic considerations appeared side by side and with equal importance. In their early-twentieth-century exploration of classification, Émile Durkheim and Marcel Mauss presented the need to order concepts as fundamental to humanity, as “the mind feels the need to connect to them the ideas which it forms about other things.”³⁵ But not all classifications are alike. Durkheim and Mauss saw primitive classifications as emotional, not bound by the fixed and consequential limits of logic that are at the basis of complex “technological” ones. If we accept the dualism they propose, we must conclude that Babylonian practices were not emotional, but rigidly rational. There was clear logic behind each collection of concepts as we see them in the lexical lists, a rationale not based solely or even primarily on the nature of each concept, be it physical resemblance or otherwise, but also on its aural and especially its written form. The decisions to connect one item to others were made following very fixed rational rules. Babylonian classification was anything but primitive.

What Makes a Word?

Now that we have looked at the structure of the paradigm, let us consider the building blocks. How did words enter a lexical list? Our ability to reconstruct the histories of Babylonian lexical compositions allows us to see how they evolved over time: clearly one of the most common features was gradual expansion in size. There are some cases where material was excised from a series—as in the lists of humans discussed in the previous chapter, where extraneous vocabulary disappeared in the first millennium—but adding new entries was far more common. First-millennium lists are always longer than earlier ones.

Like all dictionaries, lexical lists collected existing vocabulary. There was less of an interest in what people said than in what they wrote, and as the earliest writings of Babylonia were administrative, the lexical lists that originated at the same time focused on that terminology. Professions, manufactured products, plants, domestic animals, fish, birds, city names, and so on form the contents of the first lexical lists from Uruk.³⁶ As long as Sumerian remained the dominant language of administration—that is, until 1600 BC—there always was a close connection between the documents of daily practice and the lexical material. After all, a scribe’s training depended for a great part on the copying of lexi-

cal passages, and it is common sense that the terminology needed on the job would be taught. The pragmatic inspiration of lexical material is especially clear from a series entitled *ki-ulutin-bi-še₃* = *ana ittišu*, composed in the first centuries of the second millennium but best known from manuscripts that derive from late-second- and early-first-millennium Assyria. The seven-tablet series picked apart legal documents, isolating terms and phrases: interest, an interest-bearing loan, an interest-free loan, an exchange, etcetera.³⁷ The development of other genres of writing—royal inscriptions, letters, literature, scholarship, and others—provided additional vocabulary that could be integrated in the lists. Certainly, general concerns with how to write Sumerian led to syllabaries and acrographic lists, while compilations of the names of gods, wooden objects, birds, and so on found source material in every available genre of writing. Sometimes we can identify the specific source of a lexical passage. The series called *erimḫuš* = *anantu*, for example, as attested in later-second-millennium manuscripts from Hattusas, reproduced the vocabulary from a line of an early-second-millennium hymn to the goddess Inanna that praises her various abilities: “to initiate a quarrel, to joke, to cause smiling, to be base, to be important.” There is little doubt that the author of the lexical section quoted the hymn.³⁸

By the time that Sumerian disappeared as the primary language of administration and other writings around 1600, the practices of lexicography were well established and most series were already in existence. Only a few additional lists developed for the understanding of Akkadian vocabulary. By the first millennium the eight-tablet list *malku* = *šarru* set out to explain Akkadian terms that were archaic or of foreign origin, providing them with more up-to-date synonyms or an indication of their general meaning,³⁹ but the Akkadian language never became a subject of systematic investigation on a par with Sumerian. Yet one of the reasons for the expansion of lexical lists in the first millennium is that a growing number of Akkadian translations for Sumerian logograms were added, each entered on a separate line. As we saw earlier in this chapter, the translations were not always genuine. The main source of new Sumerian entries was not additional vocabulary generated in other writings, but the creativity of the lexicographers themselves.

Compilers of such modern giants of lexicography as the OED sift through thousands of writings—old and new, popular and highbrow, printed and online—to identify new entries. Their decisions often cause

controversies that reach the pages of daily papers—did “vuvuzela” merit lexical recognition in the English language after the 2010 FIFA World Cup? Modern lexicographers would never make up a word, however, and if they did, fact-checkers would soon set them straight. Babylonian lexicographers did not have such professional qualms, and one can even question whether empiricism was the primary concern of their research. It is obvious that not only did they collect and organize words they observed elsewhere, but from the moment the genre originated they were involved in an enterprise that generated new words. In this they were much aided by the format of the list. The iteration of related terms stimulated the invention of new ones. The relationship between list and language was reciprocal. Yes, the uses of Sumerian in various writings provided some of the building blocks of the lists, but the structure and nature of the lists easily enabled elaboration on a theme, and we can discern various generative paradigms.

The general principle that dictated the elaboration of entries was pointillism—I will use the term in my investigation of other Babylonian sciences as well.⁴⁰ Knowledge was cumulative, in the sense that each entry in the list could be comprehended only when seen in the context of the other, closely related, entries surrounding it. The authors of lexical lists explored various nuances of a word by placing it into multiple contexts and adding new elements to it. The process of adding new elements to a word was very simple, considering the agglutinative character of the Sumerian language, which allowed for the combination of words to specify meaning. In lists of utensils, for example, one could differentiate their precise usages. The tenth tablet of Ura = *hubullu* in its first-millennium form has more than 300 entries for containers, because the basic forms of “vessel,” “pithos,” “drinking vessel,” and “jar” were each given separate entries when the vessels were used for water, for beer, for milk, for oil, and so on. The compilers displayed a sophomoric sense of humor when they ended that sequence with piss pot. The thirteenth tablet of the same series has 181 entries for sheep, including some rather strange sequences, such as “sheep eaten by a god,” “sheep eaten by a lion,” and “sheep eaten by a wolf.”⁴¹

Elaboration was also easily accomplished by playing around with various elements of an entry. When the authors of the series *ana ittišu* studied legal phrases, they looked at verbs in the present and past tenses, and in the singular and the plural: “he gives, they give; he gave, they gave.” All sorts of options were explored, which the list format

encouraged. Thus, to the phrase “if a son says to his father, you are not my father” these alternatives were appended:

if a son says to his mother, you are not my mother
 if a father says to his son, you are not my son
 if a mother says to her son, you are not my son
 if a wife says to her husband, you are not my husband
 if a husband says to his wife, you are not my wife⁴²

Paradigmatic sequences were applied to all sorts of words, and although the outcome mostly seemed to fall within the possibilities of the real, there was no clear boundary to prevent sliding into the fictional. Take patterns involving numbers, for example. The series *Ura = hubullu* in its Old Babylonian version included the entry “a plow pulled by four oxen.” In the first millennium this single line had expanded into five, that is, plows pulled by eight, six, four, three, or two oxen. Were teams of eight oxen ever used?⁴³ Colors often served as variables, and we find the sequence “white,” “black,” “red,” “speckled,” and “yellow” repeated numerous times. While this may have made some sense for some animals, it is unlikely that was true for all animals included: sheep, goats, cows, dogs, pigs, ants, and scorpions. The pattern was repeated elsewhere in lexical lists with stones, trees, and dates, and also outside the genre in omen texts, which I will discuss in chapter 5.⁴⁴ A similar lexical variation involved foreign places of origin: date palms, tables, ships, bronze, and carnelian all appear as deriving from the distant regions of Dilmun, Magan, and Meluhha.⁴⁵ In sequences of this kind it was simple to invent terms never used in real life; as we saw before, from the start the lexical genre invented fictive terms, such as vessels in which the signs for pigs or donkeys were inserted.

From Lexicography to Poetry

The list format invites an element of play. The Babylonian authors explored the potentialities of writing by playing around with words, combining elements based on parallelisms. They used alliteration and analogy and exploited the silhouettes of the written characters. They reduced the word to its simple form, combining it with other words. As Roland Barthes said, this process is akin to writing poetry, and indeed, Babylonian poets explored that connection in full. A typical rhetorical device was enumeration, the use of a sequence of variants. One short

poem, for example, lists the varieties of plants that a sheep could graze: camel thorn, winnowed barley, barley ears, and so on. The author enumerated sixteen different plants.⁴⁶ The parallelism between poetry and lexical lists is even more obvious in a long Sumerian poem of the early second millennium, which we call *Enmerkar and the Lord of Aratta*. In it the lord of Aratta mischievously demands a dog that is neither black nor white, brown nor red, yellow nor speckled, repeating the list of colors so common in lexical texts.⁴⁷ Such a creature cannot exist; the poem exhausted all possibilities, that is, all the colors a lexical text would use.

The Babylonians certainly were not alone in exploiting the creative nature of lists. Lists appear as literary devices in many other cultures and times. Let me recall the prologue of Rabelais's *Tiers livre*, with its catalogue of the weapons that the Corinthians prepared when under attack by Philip of Macedon. Mikhail Bakhtin said about it, "This is the largest listing of its kind in world literature. For instance, there are thirteen terms for swords and eight for lances."⁴⁸ The list format allowed Rabelais to modify terms ever so slightly to conjure up exhaustiveness—dards, dardelles, javelines, javelotz; the Corinthians mustered every conceivable weapon in their desperate attempt to keep Philip at bay. Bakhtin could not have been aware of a passage in the Sumerian praise poem to Ninurta that lists that god's weapons, equally impressive:

On my right, I bear my Šar-ur (šarurġu).
 On my left, I bear my Šar-gaz (šargazġu).
 I bear my Fifty-toothed Storm, my heavenly mace (udzuninnuġu).
 I bear the hero who comes down from the great mountains,
 my No-resisting-this storm (udbanuillaġu).
 I bear the weapon that devours corpses like a dragon,
 my *Agasilig* axe (agasiligġu).
 I bear my . . .
 I bear my . . .
 I bear the *alkad* net of the rebellious land, my *Alkad* net (alkadġu).
 I bear that from which the mountains cannot escape,
 my *Šušgal* net (šušgalġu).
 I bear the seven-mouthed *mušmaḥ* serpent, the slayer, my Spike (?)
 (DUB.GAGġu).
 I bear that which strips away at the mountains, the sword,
 my Heavenly dagger (ġiriannaġu).

I bear the deluge of battle, my Fifty-headed mace (šitasag̃ninnuḡu).
 I bear the storm that attacks humans, my Bow and Quiver
 (panmaruruḡu).
 I bear those that carry off the temples of the rebellious land,
 my Throw-stick and Shield (ilargurḡu).
 I bear the helper of men, my Spear (ḡišgiddaḡu).
 I bear that which brings forth light like the day, my Obliterator-of-
 the-mountains (kurrašuruḡu).
 I bear the maintainer of the people in heaven and earth,
 my The-enemy-cannot-escape (erimabinušubbuḡu).
 I bear that whose awesome radiance covers the land,
 which is grandly suited for my right
 hand, finished in gold and lapis lazuli, whose presence is amazing,
 my Object-of-trust (ḡiškimtilḡu).
 I bear the perfect weapon, exceedingly magnificent, trustworthy in
 battle, having no
 equal, well suited for my wrist on the battlefield, my Fifty-headed
 mace (šitasag̃ninnuḡu).
 I bear the weapon that consumes the rebellious land like fire,
 my Fifty-headed club (mitumsag̃ninnuḡu).⁴⁹

To Bakhtin, Rabelais's list and others found in late-medieval European writings were oral versions of parades, the public exhibition of armed forces, of regiments that filed by the audience in a repetitive pattern with minor variations. They were popular entertainment, using the alliterative language that sellers in the marketplace used to advertise their wares. I do not think that we can say the same about the Babylonian lists—although the enumeration of Ninurta's twenty weapons certainly conjures up the image of military parades of the type one can imagine took place when victorious Babylonian armies returned home. The poetic sequences, like those in lexical lists, manipulated written terms on the basis of visual elements as well as aural ones. This was the work of scholars who knew the language well and saw the creative potential of playing with the written word. It was not the Sumerian language that made the lists so rich, it was the lists that refined the language. Jack Goody saw it this way: "The extent of this listing activity is associated by Landsberger with the nature of the Sumerian language; because of its transparent and unambiguous structure, it was suited to classifying the world. I would rather argue that it was the lists that helped to make Sumerian unambiguous, that the influence of writing

on the use of language was more important than that of language on the use of writing.”⁵⁰

From Lexicography to Reality

Through their rote copying of lexical and literary passages students in Babylonian schools acquired a massive vocabulary of Sumerian terms, and they must have seemed extremely learned to their illiterate neighbors. They lived in an ivory tower, however, as their knowledge was unworldly: although they knew an abundance of words, they had no interaction with the realities these named. As we saw, many of the terms they learned to write did not even have a physical complement. When they repeated sequences of types of wood, they displayed no practical knowledge, just lexical erudition. When they copied out a literary text that dealt with agriculture—we call it *The Farmer’s Instructions*—they did not write down what was important to farmers, but administrative lingo.⁵¹ Yet, many of them ended up as administrators in charge of accounting for agricultural resources and the like. How did they apply their school knowledge in real life?

The lexical series were characterized by their high degree of specificity; they listed more than 300 vessel types, 181 varieties of sheep, and so on. The differences made sense in the lists, but were they useful in reality? There was much less specificity in the abundant records of daily use we know from ancient Mesopotamia than in the lexical texts.⁵² Yet, the people who drew up administrative records had been taught to recognize minute distinctions in writing, and logically we can imagine that this did affect the way in which they viewed the world. Babylonian accounts can be remarkable in their attention to detail. In the history of that culture the scribes of the twenty-first-century Ur III state were perhaps the most concerned with being precise. They categorized sheep and goats meticulously, including aspects of how they were fattened: barley-fed, top quality (first grade); barley-fed, top quality, next grade; barley-fed, third grade; barley-fed, fourth grade; barley-fed; barley-fed, “following the oxen”; grass-fed. For wool they distinguished five qualities: royal, second, third, and fourth rate, and normal.⁵³ One can argue that none of these distinctions are meaningless: the quality of wool affects that of the final product; the ways in which a sheep is fattened influences the taste of its meat—today’s quality butchers advertise grass-fed beef. But many accountants of the

ancient world did not bother to be so specific. In first-millennium records from Babylonia, for example, sheep and goats were only categorized as male and female, young and old. Linear B tablets from Mycenaean Greece were even less specific and distinguished only between male and female sheep.⁵⁴

The historian Tony Judt once stated that our designations “first class,” “second class,” etcetera, now used constantly for both practical and metaphorical purposes, are a modern invention that we owe to the “classes” of travel railways introduced.⁵⁵ He was unaware of the Babylonians who rated qualities in a numerical order. I hesitate to say that they were the only exception to Judt’s assertion, but I have been unable to find classifications that are as particular as the Babylonian before modern times. In any case, the decision to be so specific was a matter of choice rather than necessity. Taught in school to acknowledge minor distinctions in written terminology, Babylonian scribes looked at the world with different eyes than those not so trained. They did not just see ewes and rams in a flock of adult sheep, but classified them by age, breed, color of the wool, and other attributes. Naturally, in their daily accounts they would not come up with fictional characters—that is something we will encounter in omen texts—but they differentiated a reality others in ancient times and later on did not see. The lexical list can be held responsible for that.

Babylonian Grammarology

What has all of this to do with epistemology? The lexical material calls out loudly the Babylonians’ concern with the written word. The ancient scholars were not only interested in the meaning of written words and their relationship to the spoken language, which they showed in the translation and pronunciation elements of the syntagm, but also in their shape. They showed this by commenting on the visual aspects of lexical entries—slanted, hatched, doubled, etcetera—and by grouping together similar-looking signs in their lists. The lexicographers sought out resemblances between written signs: what logograms had the same outline, which ones had the same Akkadian translation, which ones had the same pronunciation, what pronunciations could be rendered by the same sign. Similarity of meaning was of interest as well, and the so-called thematic lists grouped together hundreds of entries that were semantically related. But the desire to classify physical reality into the-

matic groups does not explain the lexical lists' prevalence in Babylonian culture. The lists study writing, its characteristics and its potentials.

Heir to the Classical Greeks, western tradition tends to see the written word as secondary and accidental to reality. Plato himself wrote that no book represents a man's most serious thoughts, and in *Phaedrus* he made Socrates famously denounce writing as "external marks" that do not lead to knowledge but only remind the reader of something he already knew.⁵⁶ The spoken word from the mouth of the teacher was far superior, as it unearthed truth through discourse. Writing was imitation, not creation, to Socrates, whose words—ironically—are only preserved because they were written down. There is a long history in western thought that denigrates writing as an inferior duplication of speech—Plato, Aristotle, Rousseau, D. H. Lawrence, Lévi-Strauss, and many others⁵⁷—and the concept lies at the basis of much linguistic theory, including Saussure's *langue* and *parole*, the latter referring to spoken language, not script. But others disagree, crediting writing with a status equal to and parallel with speech, and with a radical impact on human cognition.⁵⁸ In the late twentieth century Jacques Derrida upset the opposition between the two, and turned the relationship upside down: to him, writing has primacy over speech. His *grammatology*, a study of the written sign that is not subservient to reality or speech, has an intriguing Babylonian genealogy to it. The title of his 1967 book *De la grammatologie* recalls that of a book the Near Eastern linguist I. J. Gelb published in 1952, *A Study of Writing*, with the subtitle *The Foundations of Grammatology*.⁵⁹ Gelb was interested in script invention, how and to what extent writing systems represent the spoken language, and whether early scripts such as cuneiform, hieroglyphs, and Levantine alphabets originated independently or as a result of the diffusion of an idea. Derrida praised the innovative aspects of Gelb's book and acknowledged its subtitle, but recalled for his own study the definition of *grammatology* from the nineteenth-century *Dictionnaire de la langue française* by Émile Littré, "A treatise upon Letters, upon the alphabet, syllabation, reading, and writing."⁶⁰ To Derrida *grammatology* replaces *semiology*, with its primacy of the signified over the signifier. *Grammatology* studies how writing creates its own meaning, and although Derrida did not explore his few Babylonian references in detail, his methodology is eminently useful to comprehend Babylonian writing.⁶¹

Derrida's famous lecture "*Différance*" made the point clearly: the audience listening to his spoken words could not figure out what he meant when uttering *différance*—the common French word for difference, *dif-*

férence, or Derrida's neologism (he calls it neographism), *différance*, laden with additional meaning.

Therefore, preliminarily, let me recall that this discreet graphic intervention, which neither primarily nor simply aims to shock the reader or the grammarian, came to be formulated in the course of a written investigation of a question about writing. Now it happens, I would say in effect, that this graphic difference (*a* instead of *e*), this marked difference between two apparently vocal notations, between two vowels, remains purely graphic: it is read, or it is written, but it cannot be heard. It cannot be apprehended in speech, and we will see why it also bypasses the order of apprehension in general.⁶²

While readers of alphabetic writings might resent this word play, Babylonians would not. To them the concept of *différance* would sound natural and obvious. In cuneiform writing the written word has a much more nuanced meaning than the spoken one. The selection of a written sign was not just guided by its phonetic value as a building block in a larger context, the spoken word or sentence. A sign contained meaning beyond its phonetic shape. Each sign was chosen from a set of options, a group of homonyms, because of its additional meanings, which lexical texts so neatly listed and expanded. The choice was exclusionary, rejecting other options along with their connotations, thereby displaying one characteristic of Derrida's *différance*, to differ. But, at the same time, its meaning was not self-centered or sovereign. As any reader of cuneiform knows, the correct reading of a sign is only revealed when the next signs are read. All meaning is deferred, the second aspect of Derrida's *différance*.

Let me be explicit. Cuneiform was not invented to reproduce the spoken language. In origin it was a device for recording economic transactions through a coherent system of graphic elements that used nonlinguistic structures of organization.⁶³ Soon afterwards it did establish connections to the spoken vernacular and started to render phonetic and grammatical elements, syntax, and the like, but it did not lose its independent status. Scholars of cuneiform regularly remark that the script never reached its conclusion of full syllabism, which would have made it more faithful to its spoken antecedent and easier to read. In Jean Bottéro's words, cuneiform writing always retained "traces of its primitive and imperfect stage."⁶⁴ But representing speech was not its aim. Writing created its own reality independent from speech and man-

ifest to the reader alone. This creativity had multiple aspects. Not only could Babylonian scribes generate words that made sense solely in writing, but they also elucidated and strengthened the meaning of words by carefully selecting how to write them.

As we have seen, the list format made it easy to invent terms graphically. At first it was perhaps mostly a process of inserting a variety of signs into standard matrices, a pig inside a vessel, for example. Early lexical lists included many such invented or “theoretical” signs. Later on, the play element of the lexical lists, with their creative paradigms of color, number, and so on, regularly instigated the production of terms unimagined or impractical otherwise. A plow pulled by eight oxen is easy to write out, but does it really exist? Derrida’s expression “neographism” suits these inventions well.

Creativity did not end with developing fanciful terms. Probably more significant to the Babylonian scribe was the potential to use the basic rules of the cuneiform script in order to enrich and strengthen the message of the text through the careful selection of the signs to write it. Let us remember two principles: signs have multiple pronunciations—a sign is polyphonous; and syllables and entire words can be written out with more than one sign—several signs are homophonous. The scribe had various options to write down words and sentences, and the choice made was meaningful. In daily writings conventions ruled, and scribes used sign values and sequences that repeated what others did for the sake of clarity. The choices were rarely the simplest, however, and added meaning that was absent in speech. Basic accounting terms, repeated over and over again by scribes, often were elaborate signs. There was no attempt toward an economy of writing. The Sumerian word for “grain heap” was *gur*. Multiple options to write this sequence of sounds existed, including a simple sign made up of four wedges, but scribes persisted in writing it with a complex sign, which modern scholars coined *gur*₇. Essentially, the same was true for every concept: its written appearance was more important than the way it sounded. Compound signs regularly contained a sequence of elements that explained the meaning of the word, only visible to the reader. To write “waterskin,” for example, a word that was pronounced *ummud* in Sumerian, scribes used the sequence *KUŠ.A.EDIN.LAL*, that is, “leather object to carry water in the steppe.”

 *gur*

 *gur*₇

 *KUŠ.A.EDIN.LAL*

Custom dictated how one wrote administrative documents, and accountants had no choice but to follow established practices. That was not the case for scholarly, liturgical, and ritual materials, where a scribe could play with the choice of signs in order to strengthen the meaning of what was written. In magic and ritual, not only were the officiant's words and actions important, but also the writings used. Examples abound.⁶⁵ Cleansing rituals required water from wells; thus, some texts describing them wrote the command "you clean him," Akkadian *tullašu*, with the sign *tul*₂, because that was the Sumerian word for "well." Rituals against witchcraft used ovens, *tinūru* in Akkadian. By spelling this word *ti-ZALAG*, with *ZALAG* to be pronounced *nūru*, the scribe brought in the idea of "light" (in Sumerian *ZALAG*, in Akkadian *nūru*), something witches hated. The scribes who invented such ways to write out words relied on lexical texts for inspiration. The habit of those lists to multiply readings and meanings of signs encouraged a specificity akin to that employed by the accountants. The spelling of each syllable could strengthen the message of the text. Remember how the final 200 lines of the *Enūma eliš* used the polysemy of signs as laid out in lexical lists to interpret the fifty names of Marduk. The longevity of the lexical tradition in Babylonia—essentially attested as long as cuneiform writing was in use—made it possible for scholars to whom Sumerian was a long-dead language of literary expression alone to produce explanations with new meanings. Thus, a scribe from the Parthian period in the final centuries BC decided to translate into Akkadian the Sumerian expression *e-la-lu*, "woe," in his copy of a temple lament by reading three homophonous signs: for *e* he read *e*₂, the Sumerian word for "temple" translated as Akkadian *bītu*; for *la* he read *la*₂, in Akkadian *lapātu*, "to touch"; and for *lu* he read *lu*₃, equated with the Akkadian verb *dalāhu*, "to disturb." The term "woe" became *bītu ša dalhiš laptu*, "temple touched in a disturbing way." The connection with temple destruction could not be stronger.

The scribe from the Parthian period in the last days of Babylonian culture still knew that writing was not innocent. He conveyed meaning through his manipulation of the cuneiform signs using a system that had originated 3000 years before. When in the late fourth millennium inhabitants of southern Babylonia invented script as an instrument of communication, they did not shackle it to speech but gave it autonomy and the flexibility to develop its own system of meaning. Immediately they created lexical lists to point out similarities between the written

words, but also differences: all vases are similar, but their content makes them different. Creative processes permitted an almost boundless expansion of these lists—as we saw happened over the centuries: new words could be invented, new meanings added, new pronunciations suggested, each providing new options for understanding and improved means of expression. The lexical lists gave writers and readers of other texts the tools to expand the boundaries of their work. Writers could substitute one homophonous sign for another, thereby strengthening the ideas conveyed; readers could choose from multiple options when reading a sign, thereby exploring the meaning of the written creatively.

If we set aside the preconception that the function of script is merely to render spoken language, we can easily understand an event in the history of Babylonian writing that has startled scholars. When in the eighteenth century BC Akkadian became an accepted language for written communication of all genres, it was written out almost fully syllabically. Students today start by reading the Code of Hammurabi because of the ease of reading its mostly syllabic spellings. The earliest omen series were written similarly; but those of the seventeenth century increasingly used logographic writings and thereby complicated reading, a trend that continued in the later second millennium and beyond for all genres of writing. Modern scholars are annoyed by this development, an outlook well reflected in this paragraph:

Around the middle of the second millennium B.C. we find what Oppenheim called a “strange reversal” in the development of the script, which led to greater and greater complexity and the increasing use of logograms over syllabic signs. In Gelb’s phrase the script now became “degenerated.” This trend, which led to literacy becoming the prerogative of a restricted class of highly trained professionals, appears to be linked to a political and economic centralisation process which marked the late second and early first millennia. It should be kept in mind that the complexity of the late cuneiform system of writing needs an explanation, for it was not built into the script itself.⁶⁶

This attitude approaches writing as a representation of speech only and assumes a teleology from complicated logographic systems to the alphabet, which with its limited number of symbols is able to record anything spoken in an easy and straightforward manner. Cuneiform may have conformed to that model for its first 1500 years: from a fully

logographic system with more than 500 signs it developed into a highly syllabic one in which fewer than 100 did most of the work—although it never limited itself to the use of syllabic signs. But after it achieved this status, which many modern scholars consider superior, Babylonian writers increased their use of logograms. As Oppenheim described it, omen texts that spelled out sentences so neatly in syllables at first, by the early first millennium used logograms for all nouns and verbs and provided them with a minimum of phonetic complements necessary to establish syntactic relations. In his opinion, the science of writing became a secret knowledge for the initiated few.

When we discard this teleology and instead consider the Babylonian concept of writing on its own terms, we must interpret this change very differently. If we accept that polysemy gave signs an increased ability to communicate, then the writing system in the mid-second millennium made progress. Scribes sought out cuneiform signs whose multiple meanings added information to the words they put down. To write out “you clean him” with a sign that invoked well water strengthened the force of the expression. Indeed, it demanded more advanced knowledge from the writer to generate these additional meanings, but it was a logical outcome of the very concept of the power of writing. It enriched meaning.

The lexical enterprise was gigantic and was sustained for millennia, shaping the minds of anyone who encountered the cuneiform script, in Babylonia and abroad. It was unique in the ancient world and fundamental to Babylonian thought. It is the keystone to Babylonian philosophy. In the Near Eastern past everyone who learned to read and write copied out passages from lexical lists early on in their schooling, and these methods of seeing the written text and its elements were fully ingrained in their minds. So were the creative opportunities writing provided. It is no surprise that we see them reflected in all other writings. In the next chapters I will explore the same methods of reading in two types of scholarship that were clearly related, yet distinct: omen lists and law codes. They both dealt with verdicts—the first divine ones, the second human—and used the same phraseology: “If X happens, then Y will follow.” The parallels are so obvious that they have been pointed out repeatedly.⁶⁷ But there are clear differences. Divinatory writings dealt with the entire universe in all its aspects and aimed to encompass all conceivable possibilities. Their purview was unlimited and their authors displayed an unbounded creativity, producing a massive corpus of lengthy series of omens with tens of thousands of entries.

In contrast, law codes were tied to the mundane and were rooted in the practicalities of daily life. They were much more sober, so to speak, briefer and more realistic. But they used the same methods of reasoning as lexical and divinatory lists and thus show us that the Babylonian search for truth, with its procedures that are very alien to us, was nevertheless pragmatic. I will deal first with divinatory writings, whose abundant creativity resembles the lexical texts we just considered; then I will treat the more restricted corpus of law codes, whose pragmatism made possible their impact on other cultures inconceivable in other areas of Babylonian intellectual life.

PART III



WRITINGS OF THE GODS

CHAPTER 4

Omen Lists in Babylonian Culture

THERE is an ancient belief, handed down to us even from mythical times and firmly established by the general agreement of the Roman people and of all nations, that divination of some kind exists among men; this the Greeks call *mantiké*—that is, the foresight and knowledge of future events. A really splendid and helpful thing it is—if only such a faculty exists—since by its means men may approach very near to the power of gods. And, just as we Romans have done many other things better than the Greeks, so have we excelled them in giving to this most extraordinary gift a name, which we have derived from *divi*, a word meaning “gods,” whereas, according to Plato’s interpretation, they have derived it from *furor*, a word meaning “frenzy.”

With these words the great Roman orator of the first century BC, Marcus Tullius Cicero, started the first book of his *De Divinatione*,¹ reflecting a time-honored ambivalence about divination: while it is universally practiced, there are many who, like Plato, think it is madness. Cicero went on to mention as primary examples of those who believe in the signs of the gods Assyrians and Chaldeans, devoted readers of the stars and their constellations. For the second group he was careful to point out that he meant a people and not the members of a profession, because already in his time the term “Chaldean” had come to mean “astrologer” in the Graeco-Roman world, a connotation it kept for centuries until the recent decipherment of their writings reintroduced the knowledge of Chaldeans as ancient inhabitants of Babylonia. The conflation of meanings is easily understood: in antiquity Babylonians were the masters of divination, and they preserved, elaborated, and refined their techniques for centuries, holding on to them while all else seems to have collapsed around them. More than a hundred years after Cicero,

Pliny the Elder described Babylon as a forsaken city with nothing left but the temple of Jupiter Belus, that is, the Babylonian god Marduk, “the first inventor of the science of Astronomy.” The last datable cuneiform tablet known today is an almanac predicting astronomical phenomena, such as the visibility of planets, written at Uruk for the year 79–80 AD, the year of Pliny’s death in the Bay of Naples.²

There is an irony in the modern attitude toward Babylonian divinatory sciences, an attitude that reaches back to Classical Greece. On the one hand, these sciences are thought to provide the clearest evidence of a mistaken worldview in which the future is predictable, a sign of naiveté if not irrationality. In Roman times any charlatan who professed to read the future in the stars was called a Chaldean.³ On the other hand, celestial divination gave birth to the only scientific inquiry where the Babylonian influence on later European traditions is never denied: mathematical astronomy. A perhaps somewhat overenthusiastic assessment that “all western efforts in the exact sciences are descendants in direct line from the work of Late Babylonian astronomers”⁴ has a kernel of truth in it. Ptolemy’s second-century AD *Almagest*, the basis for all theoretical astronomical models in Christian and Muslim worlds until the sixteenth century, was fully rooted in Babylonian scholarship, which the Alexandrian author knew directly or through earlier Hellenistic writings.⁵ Ptolemy and other Classical authors were happy to acknowledge the debt they owed to the Babylonians as founders of the science of astronomy. For long historians of science tried to keep separate the two contradictory aspects of Babylonian thought—the irrational astrology and other divinatory techniques, and the rational astronomy—but most now realize that they belong to a common system of thought. Mathematical astronomy was as much part of Babylonian divination as the examination of the liver of a sacrificial lamb. Any attempt to separate the two is an imposition of modern criteria on ancient thought. We have to look at the whole of the divinatory sciences to study how the Babylonians understood their connection to reality.

Here I will not look at Babylonian divination as practiced, however, but at the writings that guided the interpretation of the signs of the gods. These are overly abundant and highly systematized, and they fit perfectly within Babylonian philosophy in general. We may see them as the height of Babylonian writings on epistemology, as they provide the most detailed evidence on the hermeneutical systems behind knowledge—albeit of something we do not consider knowable. The writings are not easy to understand or even to appreciate, partly because they

provide a worldview we, as post-Enlightenment scholars, have to reject as irrational. How can we take serious the Babylonians' idea that a black cat presages good fortune? The format of divinatory writing can also be a deterrence to their study. Reading hundreds of sentences with exactly the same structure—if X, then Y—introducing what seem minor variants only, can be tedious, especially when the contents seems empty of meaning.⁶ For much of the twentieth century only a few devotees paid much attention to omen lists. Recently the subject has become very popular, but even today after two decades or so of intense publication and edition, many series of divinatory texts are not yet reconstructed in full. We do know enough, however, to investigate their system of reasoning.

The Divinatory Underpinnings

In the theocentric Babylonian worldview the gods knew the past, present, and future, whereas humans only knew the present and some of the past.⁷ The gods were willing to communicate what was to happen, however, and were open to changing it. Diviners worked hand in hand with exorcists and lamentation priests, who could sway the gods to turn a negative future into a positive one. The Babylonians were no fatalists, and believed that destiny could be altered through prayers, rituals, and offerings. Gods and humans were in a dialogue in which the gods used ominous signs that required proper interpretation, and that was the diviner's task.⁸ The signs did not cause the future—the gods did—but they revealed what was to come, and the gods left them everywhere, writing messages as if they were texts. Certainly in the first millennium and probably also before, the Babylonians and Assyrians saw the patterns of celestial bodies in the sky as a heavenly writing, *šitir šamê* in Akkadian, that communicated the future. But the gods did not only write in the sky. The sun god Shamash, among others, was praised for communicating through the sheep's liver. "You inscribe omens in sheep," states a Neo-Assyrian incantation to him, while King Sargon II asserted in a military campaign account, "Shamash, the warrior, caused an unambiguous omen to be inscribed for me on the liver (of the sacrificial animal)." The signs were everywhere, and those in heaven paralleled those on earth, as the *Babylonian Diviner's Manual* states: "heaven and earth bring us omens; they are not separate from one another; heaven and earth are interconnected."⁹ In heaven, the moon and the sun provided the most detailed messages, but the planets and stars and

the weather were also ominous. On earth, diviners looked at the placement and all other features of houses and entire cities, at the behavior of humans, animals, and demons, at malformed births, and at every physical mark on a person. They analyzed dreams, and consulted calendars for propitious and inauspicious days. Those were all unprovoked omens, observable without any initiative on the diviners' part. But they also solicited information by extispicy, cutting open sacrificial animals, mostly sheep, and examining livers, lungs, and intestines. They poured oil and flour on water to observe the patterns formed, they burned incense to see how the smoke rose, and prodded cattle to watch them move.

Divination was a massive industry. Individuals who wanted to know whether the coming year would be good could buy a lamb to be inspected by the local diviner. The diviner was not a priest attached to the temple but an independent entrepreneur, who could be engaged in other lucrative businesses as well. The reports we have of such private consultations always predict a positive outcome, so the cost must have been worth it, the animal doubling as an offering to the gods. People consulted the diviner regularly if they could afford it. The archive of a priest in late-seventeenth-century Sippar contains reports of thirteen extispicies over eight years, three of them in successive months.¹⁰ By far most of the information preserved deals with divination on behalf of the king, who represented the state. No expense was spared on his behalf. One account from the Mari palace dated to the year 1765 records the use of more than 4143 animals in nine months.¹¹ The royal archives of Assyrian Nineveh contain some 600 reports from astrologers and astronomers; the observers were scattered throughout Assyria and especially Babylonia, not only in the imperial capital Nineveh, but also in Assur, Uruk, Borsippa, Dilbat, Cutha, and Babylon. This ensured that events in the skies could be seen even when clouds blocked visibility in a specific place.¹² Divination experts and the people who worked to avert the predicted negative future belonged to the inner circle of the Assyrian king's advisors. They included scribes who specialized in the interpretation of unprovoked celestial and terrestrial omens, haruspices who consulted animal intestines, exorcists who tried to avoid evil through rituals and spells, physicians who applied medical treatment, and lamentation chanters who sang for the gods. They were considered to be wise, and each group mastered a large corpus of written materials. A record from the court of Assurbanipal reports that around the year 650 it employed seven scribes, nine exorcists, five haruspices, nine phy-

sicians, and six lamentation chanters. There were also three augurs of bird omens, three Egyptian scholars, and three Egyptian scribes.¹³

The communications by the gods were not unambiguous; they required careful and informed analysis. That is probably true for divination wherever it was and is practiced: diviners are specialists, although they do not have the same skills everywhere. In the ancient Greece, they interpreted messages without the help of manuals. In the biblical world, prophets orally reported the god's will under his direct inspiration, and the challenge they faced was more a matter of getting people to listen to them than of interpreting the messages. In ancient China, there was a close connection between writing and divination, but the techniques of oracle bone interpretation, that is, the reading of the cracks made in bones and tortoise shells, inspired the formulation of the earliest signs in Shang dynasty script, not the other way around.¹⁴

In Babylonia, the text came before the divinatory act, and reading techniques used for the cuneiform script fully informed the interpretation of ominous signs. The ancient scholars themselves explicitly associated divine messages with writing, as the expression "heavenly writing" and other statements mentioned before show. Ominous signs were like logograms, the cuneiform elements that indicated an entire word and whose meanings the lexical lists explained and explored.¹⁵ As we saw earlier on, cuneiform signs have multiple readings. The sign of a foot, for example, can indicate the limb, but also, through logical inference, the verbs "to walk" and "to stand firm." The reading of the sign required grammatological analysis on the basis of the other signs surrounding it. Likewise, the ominous sign had multiple meanings, and reading it was an act of interpretation. For example, the birth of a deformed animal with two heads did not have a single implication; other features determined the correct meaning:

If a malformed newborn has two heads, and the second one is on its back, and its eyes look in different directions—the king's reign will end in exile.

If a malformed newborn has two heads, and the second one is on its back, and faces its tail—the crown prince will be in enmity with his father.¹⁶

Just as the correct reading of the foot-sign depended on the signs adjacent to it, the correct interpretation of the birth of a two-headed animal depended on other characteristics of its deformity. The diviner was thus a reader.

The Divination Experts and Their Texts

All the specialists in Assurbanipal's court just mentioned—scribes, haruspices, exorcists, physicians, and lamentation chanters—mastered a set of identifiable texts specific to their area of competence. I provide a brief survey here of these collections as they existed in Assurbanipal's days to show how highly educated the people who used them were, as well how literate the nature of their knowledge was.¹⁷

The Scribe—ṭupšarru

In the divinatory world, the modestly named scribes, in Akkadian *ṭup-šarru*—a title they shared with thousands of schooled men and women throughout Babylonian history—were actually immensely learned specialists of unprovoked omens both in heaven and on earth. Some were especially called *ṭupšar Enūma Anu Enlil*, “scribe of the (astrological) series *Enūma Anu Enlil*,” after a seventy-tablet-long work devoted to all visible and anticipated phenomena in the sky.¹⁸ Tablets 1–22 study the moon, 23–36 the sun, 37–49/50¹⁹ the weather personified by the storm god Adad, and 50/51–70 planets and stars. In total the series contained thousands of omens derived from celestial events that were both possible and impossible. Lunar eclipses, for example, were presented as progressing from all four cardinal directions, while in reality the shadow always travels across the moon from east to west. Because of the mass of material abbreviated versions existed and there were commentaries and other scholia to explain technical terms as well as treatises that provided the necessary astronomical knowledge (for example, MUL.APIN, which translates as “Plow Star”).

All the omens were thought to affect the king and the state, and the astrological observations were thus of special interest to the court, which explains the large number of preserved reports about astrological observations addressed to the king. Celestial divination gained in prominence in the first millennium and was also the area of scholarship that saw the most drastic change at that time, especially in the development of mathematical astronomy, which enabled accurate prediction. Its basis was unique in divination because the phenomena it studied are largely cyclical, and empirical observation made it possible to discover patterns. Some scholars argue that a true paradigm shift in Kuhnian terms occurred in the seventh century, when Assyrian kings began to sponsor the branch of learning. From a practice that interpreted celestial events based on the same principles that other diviners used, it

became a mathematically informed science that calculated the occurrences of such events sometimes years in advance.²⁰ Not all specialists agree with this thesis, but it is clear that astrologers of the later first millennium had to learn significantly different materials and methods of analysis than their predecessors.

The scribes also mastered terrestrial divination, which involved even longer omen series. Compared to the astrological reports sent to the court of Assyria, those of terrestrial observations are pitiful in number, but the few that exist show that the same men were involved. For example, Nergal-eṭir, who from Babylon sent forty-three observations about the moon and planets, also wrote this one about an anomalous birth (unusually for divinatory observations, he was able to preserve the evidence by pickling the malformed animal):

If a malformed newborn has 8 feet and 2 tails—the ruler will seize the kingship of the world.

That archer—his name is Tamdanu—says as follows: “When a sow of mine gave birth, (the young) had 8 feet and 2 tails. I pickled it in salt and put it into the house.”²¹

To quote the relevant omen from the series *šumma izbu* (see below) he had to find the proper line to cite within a massive corpus—it was somewhere on tablet 6, now poorly preserved but known to treat the births of creatures with more than four legs.²²

Various terrestrial omen series existed. The longest one was entitled “If a city,” *šumma ālu*, and contained 120 tablets and about 10,000 omens. The first 88 tablets treated primarily characteristics of houses and cities. For example:

If the threshold of a house is higher than the courtyard—the owner of the house will be put above the mistress of the house.

If the threshold of the courtyard is higher than the house—the mistress of the house will be put above the owner of the house.²³

Many entries dealt with the behavior of humans and animals, but others discussed appearances of demons and supernatural beings. Later tablets in the series treated subjects like fire, the flight of birds, and the casting of lots. The series was so long that several excerpt texts circulated.

Scribes had to study shorter series as well, each one with a different focus. Nergal-eṭir, quoted above, cited a 24-tablet-long series that considered anomalous births. Modern scholarship usually refers to it as *šumma izbu*, “If a malformed newborn,” but the series combines four

main subdivisions that had separate titles: tablets 1–4 dealt with human births, tablet 5 with lambs, tablets 6–17 with both human and animal anomalies, and tablets 18–24 with animal births alone. The *Babylonian Diviner's Manual*, also found in multiple copies in Assurbanipal's library and addressed to the "scribes of the court," makes clear that the timing of events determined their effect: "Check (then) the date of that sign and should no sign have occurred to counteract (that) sign, should no annulment have taken place, one cannot make (it) pass by, its evil (consequences) cannot be removed (and) it will happen."²⁴ Scholars thus also had to consult hemerologies and menologies, daily and monthly calendar tablets that identify good and bad moments for actions and divinatory signs. The texts indicated good and bad times for the building of a house or its repair, for planting crops, for weddings, and so on.

The Haruspex—bārû

Working alongside specialists in reading signs that appeared spontaneously were diviners who asked the gods explicitly to produce an omni-nous sign. The *bārû*, "haruspices," slaughtered animals, especially sheep, after whispering a question in their ears and inviting the gods to write the answer into the body parts. Systematically they examined the slaughtered animals from top to bottom, right to left, and front to back, going through head, flank, vertebrae, lungs, liver, and gallbladder. The organs were considered to be the most informative, and divinatory texts devoted much attention to the liver, an especially suitable receptacle for divine messages. The guide to interpreting such signs in Assurbanipal's library was the "series of divination," *iškar bārûti*, some 100 tablets divided into ten chapters or sub-series. These focused on the gallbladder (*šumma martu*), the "path of the liver" (*šumma padānu*), the lungs (*šumma hašû*), and so on. The final chapter, *Multābiltu*, provided interpretative aids. Because of the series' size and complexity, abbreviated versions existed, and commentaries on each chapter elucidated the specialized vocabulary of body parts and physical traits. Such commentaries did not follow the order of the omens in the series but combined topically related ones and could make explicit references to lexical lists. This example from a commentary text explains why the adjectives "contracted" and "short" appear side by side in a liver omen:

"If the Path is contracted and short—Your army will not reach its goal." The reading *nigin* of the sign LAGAB means to concentrate,

the reading lugud of the sign LAGAB means to be short, to concentrate means to be short.²⁵

Other scholia existed, such as what we call “orientation tablets” that divided the liver up into zones and indicated where signs are propitious and where not. It must have required a very long training to learn the meticulous process of examining the intestines and how to interpret the signs they presented. Every individual was allowed to consult an *haruspex*, not only the king, to whom celestial signs were communicated for his own benefit and that of the state. The diviner used the sheep as a *de facto* offering to the gods, and when readings were ambiguous or unfavorable more animals could be slaughtered to obtain new information and also to placate the gods. One could only repeat the procedure three times, however. When the message was still unfavorable it was best to wait until a later time when the gods reported that the circumstances for an action were good.²⁶

The Exorcist—āšipu

The *āšipu* not only exorcised, as our translation of the term suggests, but was an active diviner as well, who examined the signs present in human beings. A large series of medical-diagnostic omens entitled *Sakikkû* starts with the statement “When the exorcist goes to a patient’s house: If he sees a potsherd standing upright in the street—that patient is dangerously sick, one must not go near him.” The series followed the patient’s examination from head to toe over six chapters and 40 tablets in total. One chapter focused on epilepsy and another on pregnant women. Besides physical condition, the entries also mentioned extraneous circumstances, such as what to expect if animals crossed the path of the exorcist, at what time the illness occurred, and other matters. The symptoms were described as ominous signs: “If the sick man turns his neck constantly to the right, his hands and feet are rigid and his eyes close and roll back, saliva flows from his mouth and he makes a croaking sound—epilepsy.” The gods were the source of all illnesses, and the exorcist had to determine what caused their displeasure.²⁷

A long colophon of a catalogue of medical texts, which credits the scholar Esagil-kīn-apli with reorganizing this material, also assigns physiognomic and behavioral omens to the exorcist’s literature. The primary series of that group is *Alamdimmû*, which, according to the colophon, “(concerns) external form and appearance.” It contained five chapters with a total of at least 23 tablets that survey form, appearance,

and utterance. Chapter 4 bears the title “If a woman’s head is large” and chapter 5 “If the spot.” In addition to *Sakikkû* and *Alamdimmû*, numerous other physiognomic omen series existed, and for all these texts scholars wrote commentaries and other scholia. The diagnostic literature exorcists had to master was thus vast.

But that was not all they had to consult: in addition exorcists worked with handbooks on how to appease the gods with apotropaic rituals (*namburbû* in Akkadian). Assurbanipal’s library contained a full edition of them: it contained at least 135 tablets and was one of the longest series ever assembled on cuneiform tablets. A mass of purifying rituals, whose close to a hundred titles appear in a catalogue, was also integral to the professional library of the exorcist, whose area of competence seems to have grown over time. In the last centuries of Babylonian antiquity exorcists were considered the most prominent of all scholars around.²⁸

*The Physician—asû—and the
Lamentation Chanter—kalû*

In addition to scribes, haruspices, and exorcists, the specialists in Assurbanipal’s court also included physicians and lamentation chanters, whose functions were subsidiary to divination. While exorcists healed through rituals by convincing the gods to remove the illness, their colleague physicians (Akkadian *asû*) applied medications made from plants and minerals. The corpus of Babylonian medical texts is also massive, but although its information is often phrased in the same manner as omens, we cannot really call it omen literature, as the texts prescribe treatments. For example:

If a man’s head burns with fever and the hair of his head falls out and he repeatedly suffers pulsating arteries in the temples—to cure him shave his head, pound one shekel of bat guano in oil, cool down his head and bind it on; do not untie it for three days.²⁹

The final group of Assurbanipal’s scholars, the lamentation chanters (Akkadian *kalû*), relied on an essentially different genre of texts for their work, and I will not discuss them further. Physicians and lamentation chanters were highly trained professionals as well, and their presence in the court alongside scribes, haruspices, and exorcists reaffirms how not only predicting the future but also averting predicted danger was the objective of this scholarship.

The division of labor used here and the assignment of scholarly oeuvres to particular groups of specialists is not to be taken too strictly. It is clear that these erudite men commanded more than one corpus of texts, as one Babylonian scholar, Marduk-šapik-zeri, proudly advertised to an unnamed Assyrian king, probably Esarhaddon:

I fully master my father's profession, the discipline of lamentation; I have studied and chanted the Series. I am competent in [. . .], the rituals of mouth-washing and of purification of the palace [. . .]. I have examined healthy and sick bodies. I have read *Enūma Anu Enlil* [. . .] and made astronomical observations. I have read the omen series *šumma izbu*, *kataduqqû*, *alamdimmû*, and *nig-dimdimmû*, [and . . .] *šumma ālu*.³⁰

Clearly, he knew the texts of the lamentation chanter and the exorcist as well as works of astrology and of terrestrial and physiognomic divination. This polymath may have exaggerated his skills—he was desperate to be reappointed after two years in prison—but his claims must have been credible enough not to sound like a charlatan.

The combination of all these scholarly works amounted to a vast library of texts, the extent of which baffles the mind when compared to other writings of high culture. More than half of Assurbanipal's library, which is our best source of information on all works of erudition in ancient Mesopotamia, was devoted to divination and the consequent procedures to appease the gods. Exact figures do not exist, but an analysis of the Babylonian materials in the library and of the library acquisition catalogues of the year 648, when Assurbanipal's troops plundered Babylonia, came up with these results. Close to 47 percent of the Babylonian literary and scholarly tablets in the library (746 manuscripts) and 82 percent of those taken from Babylonia (305 manuscripts) were divinatory series, while another 24 percent (383 manuscripts) and 5 percent (20 manuscripts) respectively were for use by exorcists and lamentation chanters. 48 percent of the actually preserved Babylonian divinatory tablets in the library were astrological (*Enūma Anu Enlil*), 14 percent extispicy series, and close to 10 percent terrestrial omens (*šumma ālu*), with negligible numbers of manuscripts for the other divinatory series. We have insufficient analyses of other state and private libraries to establish how these statistics compare, but the information available suggests that the dominance of divinatory manuscripts is not atypical, although the importance of celestial divination in the corpus is. Some modern authors see Assurbanipal's library as a massive deposit

of scholarship for divinatory purposes alone, but that seems too restricted a view in my opinion. Yet there is no doubt that the reading and interpretation of divinatory signs was the foremost concern of literary and scholarly writings in Babylonia and Assyria, and that this enterprise received constant attention and official sponsorship.³¹ No real history of divinatory writings exists, and in what follows I will outline some of its developments.³²

A History of Sorts

Divination most likely was practiced since time immemorial in Babylonia, with roots in prehistory, but the divinatory text, so dominant in the first-millennium libraries, was a relatively late creation compared to the other genres studied here. The first lexical texts were from the time of script invention, and law codes appeared in the twenty-first century BC; the earliest writings for use in omen interpretation date after 2000 BC, and omen series start to appear in the later part of the nineteenth century. The advent of the omen series is so sudden and its format so closely matches all later evidence of the genre that modern scholars tend to assume that precedents, now lost, existed, but the evidence is simply not there.³³ The earliest textual documentation of specific omens is found on clay models of deformed livers with inscriptions, such as “omen of Ibbi-Sin of Ur, which Elam reduced to a ruin and a heap.” These models were never popular in Babylonia, it seems, but they also appeared in the western part of the Near East throughout the second millennium. Some models are very elaborate and divide the liver up into segments, indicating how to interpret the signs visible in them. They were probably used as teaching tools and may have inspired similar objects in the later Etruscan world. A handful of models of lungs and colons exist as well, dating from the early second millennium into the first millennium.³⁴

In Babylonia the omen series with the boilerplate formulation “If X, then Y” became the absolute norm. The omens were always written in Akkadian, not in Sumerian (which dominated all other forms of literary and scholarly expression at the time). The first compendia came from the southern Babylonian kingdom of Larsa, and paleography suggests they dated to the late nineteenth and early eighteenth centuries.³⁵ When that area was de-urbanized after its rebellion against Babylon in the late eighteenth century, the creative center for omen series moved north to the cities of Babylon and Sippar. The dated manu-

scripts from there belonged to the reign of Samsuiluna (1749–1712); paleography suggests they continued to be written into the late seventeenth century.³⁶ The Akkadian used in the earliest texts was similar to that of the Code of Hammurabi, explicit in its spelling by using syllabic signs rather than logograms, which were rooted in Sumerian. The format of the individual omens was also that of law paragraphs: the omen “If the apex of the heart is bright on the right—elation, my army will reach its destination” has the same structure as the law “If a man rents an ox for threshing, 20 liters of grain is its hire.”³⁷ It is thus likely that laws written in Akkadian provided the paradigm for the formulation of omens. There were Sumerian-language antecedents for the laws going back to the twenty-first century, but none such existed for omens. On the contrary, Sumerian terminology entered that corpus only later on, as if to give it a more scholarly aura. While all terms but one to identify parts of the liver were at first spelled out syllabically, in the late Old Babylonian period all but one came to be written with Sumerian logograms.³⁸ Remarkably, the idea of writing omens fully in Sumerian never seems to have caught on, although people outside Babylonia wrote down omens in other languages, such as Hittite, Hurrian, Ugaritic, and Elamite. We only know of two Sumerian monolingual texts from the late second and early first millennia, and less than a handful of late-period bilinguals, and all of those record omens otherwise unattested.³⁹

Liver omens dominated the early textual record and by one estimate numbered nearly 10,000.⁴⁰ Also attested are terrestrial omens that closely resemble those found in the later series *šumma ālu* and *šumma izbu*, and celestial ones, especially involving lunar eclipses. Some texts interpret the marks on the bodies of birds, both internal and external.⁴¹ Divination through the observation of patterns made by the smoke of burned incense, by flour scattered, or by oil poured on water is documented in a few lists of Old Babylonian date. Remarkably, these series did not outlast the period (only some oil omens appear outside Babylonia in the second half of the second millennium), although the divinatory practices survived, and not only for people who could not afford to sacrifice a lamb. Oil divination was much valued in Assyria’s royal court of the first millennium, so the disappearance of compendia dealing with it is mystifying.⁴² The sudden outpouring of omens in the eighteenth century was not limited to a select number of large towns, even if Larsa, Babylon, and Sippar dominated. People in very small settlements used omen compendia as well.⁴³ A substantial number of

people were thus in touch with omen series and seem to have copied or composed them following the same rigid pattern, the details of which we will discuss in the next chapter.

A major question, of course, is why the Babylonians developed omen lists and at this moment in time. Scholars who think antecedents to the series existed centuries before the date of the preserved manuscripts—in lost written or oral formats—consider the genre an integral part of divinatory practice, with its origins clouded in the distant past. But if we accept a sudden emergence in a historically well-documented era, as I do here, we should ask what triggered this activity. Scholars who have addressed the issue explicitly connect it to the highly unsettled political and military conditions of the nineteenth–eighteenth centuries, when kings all over the Near East violently competed for power and the region was in a constant state of war. The famous Hammurabi of Babylon came out on top around 1755 after more than a decade of intense campaigning and Machiavellian diplomacy, habitually turning against allies who had helped him before. Backstabbing and intrigue were rife both between royal houses, including those related by marriage, and within them, and knowledge was the key to survival. Although omens proffered themselves as predictions of the future, they focused on presentist concerns, and diviners, who regularly represented their masters in foreign courts, communicated information through them. The predictions, with their warnings of rebellions and the like, were thus the real purpose of the messages communicated in writing.⁴⁴

Ideologically we can perhaps associate the written articulation of omens with the decline of divine kingship at this time. Only a few kings in Babylonian history were considered living gods. The practice of divine kingship existed very briefly when the dynasty of Akkad ruled supreme in the twenty-third century and was revived in the twenty-first century by King Shulgi of Ur, all of whose dynastic successors maintained the status. In the subsequent period of fragmented political power, kings of Isin, Larsa, Eshnunna, and Babylon appeared as gods in some circumstances, but many scholars believe the exaltation was more a result of tradition than of true belief. Rim-Sin of Larsa and Hammurabi of Babylon were the last Babylonians to receive divine honors.⁴⁵ As a living god, the divine king should have been able to see the future, but when, for reasons unknown to us, this status vanished, he needed help from the immortals. This is when omen readings became crucial.

This explanation of the entextualization (*Verschriftlichung*) of omens only partially addresses what happened in the eighteenth century, how-

ever. The innovation was not just that individual omens were written down in the format “If X, then Y.” They also immediately became the subject matter of long lists that systematically analyzed potential signs of the gods by exploring minute details, and from the very start series elaborated new omens according to creative principles I will discuss in the next chapter. The omen series were not records of observations, but methodical explorations of all divine signs and their implications. They originated from a conviction that the universe contained messages about the future, whose meaning one could only grasp by probing every element in every possible way. The uncertainties of life for people surrounded by war and political instability and perhaps a loss of faith in the king’s divine status led people to find comfort in the belief that the gods were willing to reveal what was about to happen through ominous signs. Since they were part of a system of communication, the signs could be explored just as one investigated other such systems, especially writing. The creators of the omen series could thus base their methods of analysis on a scholarly genre that had existed for many centuries and that had been at the basis of their own education: the lexical lists, which investigated all forms and combinations of words and of cuneiform signs, real and fictional. The lexical lists underwent radical changes at this time too: after many centuries of repeating lexical lists created in the Uruk period, entirely new lists appeared, their focus expanded to consider the building blocks of words rather than vocabulary alone. The omen series used that approach from the very start; each divinatory sign was an element in a larger message and needed to be analyzed in all its potential forms, irrespective of whether the signs were possible or not.

The scarcity of written documentation throughout the Near East in the middle of the second millennium makes it difficult to determine what happened to the newly created genre of omen lists after the Old Babylonian period. Two problematic groups of tablets that have only very recently become known to scholars have started to fill the gap. Because they both derive from looted sites, their places of origin remain uncertain and their dates tentative. Internal evidence reveals that the earliest group comes from the palace of King Tunip-Teššub of Tigu-nānum, a city perhaps located on the Tigris River in southern Turkey close to the Syrian border. Tunip-Teššub ruled around 1630, when scribes in northern Babylonia still composed lists, but the materials in his palace are different. Although they investigate ominous signs of the same type as those studied in Babylonia, they include unusual tech-

niques, such as the dropping of a bird's heart in water to see its effect on the organ. That local scribes composed the lists is clear from their distinct orthography and language use. About a century later scholars working for the so-called Sealand dynasty in central and southern Babylonia produced a small set of omen lists that were not unusual in what they consider in their investigation (mostly extispicy), but in their language, which shares peculiarities with later materials from Susa in western Iran. Creative interaction with omen lists thus continued and also involved scholars from outside Babylonia. As was the case with lexical lists, the so-called peripheral material may have provided the strongest links between the early and later halves of the second millennium.⁴⁶

In the second half of the second millennium, we are confronted with the same situation for divinatory writings as for lexical and all other literary materials, in that the preserved manuscripts derive from the so-called periphery, while the record in Babylonia is virtually blank. The usual question arises: was the creativity we observe the work of Babylonian scholars whose writings have disappeared or of those in the cities where the manuscripts were found? Non-Babylonian scholars clearly were actively involved with the materials as, besides writing out omens in Akkadian, they also produced translations into local languages: Hittite, Hurrian, Ugaritic, and Elamite. At the same time, the basis for their work was certainly Babylonian, as the series discovered in the so-called peripheral sites were elaborations of those attested in Babylonia before 1600. But did the changes in contents, style, and even orthography take place in post-1600 Babylonia or in these other places?

The evidence recovered so far—future excavations certainly will reveal more—derives from all the cities where Babylonian writing was common: the Hittite capital Hattusas, the Syrian cities Alalakh, Emar, Qatna, and Ugarit, and Elamite Susa in western Iran. Smaller settlements also had people consulting divinatory series, as fragments found outside Susa in Elam attest. In Syria-Palestine, liver models, which were no longer popular in Babylonia, were widespread.⁴⁷ As in earlier Babylonia, extispicy omens were most common, but there are also remains of omens regarding malformed births and human physiognomy. Manuscripts of dream omens were found at Susa and Hattusas, and at Hattusas oil omens, seemingly forgotten in Babylonia, survived.⁴⁸ Celestial divinatory series, which were only sparsely attested in earlier Babylonia, were common in all “peripheral” sites with omen literature.⁴⁹ At Hattusas there even appears a Hittite translation of the incipit of the later authoritative series *Enūma Anu Enlil*, “when the gods Anu and

Enlil.” The materials are very varied and often only preserved in single manuscripts, which suggests that there was no standardized corpus to be used in different places. The manuscripts were written over many centuries, with some at Hattusas predating 1500, while others derive from the late thirteenth century. Their languages are also diverse. Everywhere scholars wrote omens in Babylonian, but sometimes they translated them into the local language as well, although rarely on the same tablet⁵⁰ and mostly as separate manuscripts. One liver model from Hattusas contains observations in Babylonian and predictions in Hittite. It is clear that the local divination scholars did not just copy and translate Babylonian products, but actively engaged with them; and sometimes their products found their way back to Babylonia. A manuscript of celestial omens found there reports in its colophon that it was based on an original from Susa.⁵¹ So a variety of attitudes toward the material existed in the so-called periphery, with multiple traditions even in the same city.

All the material just described is evidence of written scholarship about divination. It is unclear what divinatory practices, if any, the people outside Babylonia adopted together with these writings. Concerns about divine plans were certainly not Babylonian alone, but the nature of such preoccupations and the techniques to discover the divine plans differed regionally. The Hittites, for example, saw divination primarily as a means to explain misfortune, which they considered the result of divine displeasure. Many of their texts are requests for explanations of why things went wrong. In Syria-Palestine prophets received messages from the gods, which they transmitted to their rulers, a practice well attested in early-second-millennium Mari but rare or unreported in Babylonia until the first millennium. The Babylonian omen series were thus received in many different contexts and scholars adapted the material to local needs, which explains the heterogeneity of the material.⁵²

The region that was geographically the closest to Babylonia and whose inhabitants spoke a dialect of the same language, northern Mesopotamia or Assyria, becomes very important for our knowledge of divinatory texts late in the second millennium. So far only one tablet from Assyria before the twelfth century is known, a fourteenth-century text from Nuzi that lists omens concerning earthquakes.⁵³ Military events changed the situation. When King Tukulti-Ninurta I sacked Babylon in 1225 he carried off its literary heritage, including many texts connected to divination and exorcism. These may have formed the basis of the

twelfth-century so-called “library of Tiglath-Pileser I” in which omen texts figure very prominently, especially those involving extispicy. The library also included observations of the daily surroundings, dreams, animal behavior, malformed births, and celestial events.⁵⁴

The Assyrian focus on extispicy is not surprising, as it suited the newly emerged idea of kingship there and its emphasis on the strong military leader. Prior to the twelfth century the Assyrians seem to have had their own divinatory practices, and it is likely that they adopted Babylonian techniques of divination together with the manuscripts. As was the case elsewhere, the scribes from Assur did not merely copy Babylonian originals, however. All scribes known to us were diviners themselves or members of such families, and they developed omen series with local characteristics. They devoted much attention to the physical appearance of their tablets, gave them a distinctive design, and wrote the texts with great care. All preserved tablets were baked at a high temperature, which suggests that their production was coordinated. The impact Assur’s scribes had on first-millennium scholarship is a complex question and depends on what type of divination was involved. They spent much effort organizing new extispicy series, but later Assyrian scholars rejected the structures they created, although not the individual omens, and turned to Babylonian sources for their inspiration. Yet, the work Assur scribes did on other types of omens became standard in first-millennium Assyria. The reasons for this distinction remain unclear.⁵⁵

It is thus utterly frustrating that we know so little material from Babylonia of the second half of the second millennium. The practice of divination certainly did not go out of fashion, as a corpus of extispicy reports shows, and omen tablets were excavated at Babylon—they remain mostly unpublished—and at Nippur.⁵⁶ A well-preserved list of gall-bladder omens with an unknown provenance shows much overlap with first-millennium manuscripts and suggests that the later organization of these omens had already been accomplished in the late second millennium.⁵⁷

There are many indications that Babylonian scholars at the very end of the millennium reworked existing omen materials into standardized series that came to dominate the first-millennium record. One figure stands out in this respect, Esagil-kin-apli, whose work was honored in the colophon of a first-millennium list of all 40 incipits of the medical series *Sakikkû*:

Concerning that which from old time had not received an authorized edition and according to contradictory traditions for which no duplicates were available—to work it anew, in the reign of Adad-apla-iddina, King of Babylon, Esagil-kīn-apli, descendant of Asalluḫi-mansum, the sage of King Hammurabi, the mainstay of the gods Sin, Lisi and Nanai, a prominent citizen of Borsippa, the cupbearer of the Ezida-temple, the anointed of Nabû (who holds the gods' Tablet of Fate and can reconcile conflicting things), the purification and cleansing priest of Ninzilzil (lady of loving trust, the favored sister of his loved one), the chief scholar of Sumer and Akkad, through the incisive intelligence that the gods Ea and Asalluḫi have bestowed on him, deliberated with himself, and produced the new edition for the omen series *Sakikkû*, from head to foot, and established it for teaching.

Take care! Pay attention! Do not neglect your knowledge! He who does not attain knowledge must not speak aloud the *Sakikkû* omens nor must he pronounce out loud the omen series *Alamdimmû*! *Sakikkû* concerns all diseases and all forms of distress; *Alamdimmû* concerns external form and appearance and therefore the fate of man, which the gods Ea and Asalluḫi ordained in Heaven. Regarding the twin series, their arrangement is the same (i.e., from head to foot).

Let the exorcist who makes the decisions, and who watches over people's lives, who comprehensively knows *Sakikkû* and *Alamdimmû*, inspect the patient and check the appropriate series. Let him ponder, and let him put his diagnosis at the disposal of the king.⁵⁸

The passage locates Esagil-kīn-apli firmly in place, time, and society. He lived in the city Borsippa in the reign of the eleventh-century Babylonian ruler Adad-apla-iddina (r. 1068–1047 BC) and descended from a line of scholars that went back to the days of Hammurabi in the eighteenth century. As a highly educated man he held multiple cult offices and benefited from the support of Ea and Asalluḫi, gods of wisdom. He used his intelligence to reorganize the diagnostic handbook *Sakikkû* and harmonized its structure with that of the physiognomic omen series *Alamdimmû*. Both are very difficult texts, the colophon continues, whose contents should not be quoted in vain. References elsewhere also point to Esagil-kīn-apli's status as a great scholar. The catalogue of texts

in the *Exorcist's Manual* mentioned above, a list known from seven first-millennium copies from Assyria and Babylonia, attributes a long string of titles to him with these words: "This is the total of the series regarding exorcism of Esagil-kīn-apli, descendant of Asalluḫi-mansum, who was the sage of King Hammurabi, the king of Babylon, the descendant of the goddess Lisia and the *išippu*-priest of the Ezida-temple." The list of works Esagil-kīn-apli is supposed to have shaped is mind-boggling in its coverage and involves so many large-scale works in various fields of scholarship that it makes one skeptical about the reliability of the statement. We have to remember that it is only because people much later claimed that Esagil-kīn-apli did all these things that we know about his work. We have no way to determine whether their claims were true or false, nor does it really matter.

Considering that first-millennium Babylonians connected Esagil-kīn-apli to this large corpus of divinatory literature, it is no surprise that he appears in another late text that associates sages with kings. The name of his royal patron is illegible, but context suggests that he could well have been Adad-apla-iddina. According to the list, Esagil-kīn-apli was one among only nine sages who lived after the flood and whose genealogy reached back into antediluvian times, when elements of culture first reached humanity. Only the Babylonians held him in such respect, however. Although the Assyrians acknowledged his existence and even his work, they were less enthralled by him. They claimed that the god Ea had composed the works that *Exorcist's Manual*, cited above, credited to Esagil-kīn-apli.⁵⁹

What was the work Esagil-kīn-apli supposedly did? Because of the colophon just quoted, we assume that he edited the series *Sakkikû* and *Alamdimmû*, creating the versions we know from first-millennium manuscripts. At that time *Sakkikû* was organized into six sub-series, such as "When the exorcist goes to a patient's house" and "When you approach the ill person," which altogether took up 40 tablets, and those tablets and their organization are reported in the texts to which the colophon was attached. Moreover, in its consideration of symptoms the *Sakkikû* series surveyed the body from head to toe, a system the colophon attributed to Esagil-kīn-apli. Through comparison with extant Old Babylonian medical and other texts, we can see that he reused existing entries, including some from the terrestrial omen series *šumma ālu*, but changed the ordering principle from a focus on the illnesses to the systematic survey of body parts. He was not the first to establish a set sequence of tablets for this series, however; scant traces from earlier

late-second-millennium texts suggest that a previous organization existed. So the extent of his work is still hard to gauge. Esagil-kīn-apli's edition was also not accepted everywhere. The versions of series *Sakkikū* and *Alamdimmū* he allegedly created were current in Babylonia and in the Assyrian libraries of Kalhu and Nineveh, but scholars from Assur refused to use them. There even exists a tablet of *Alamdimmū* from Assur, which states explicitly that it reproduces an older version, one not altered by Esagil-kīn-apli.⁶⁰

Esagil-kīn-apli is thus probably paradigmatic of a group of Babylonian scholars who in the very late second millennium edited existing materials of literate culture, gathering sources from various traditions and centers, and organizing them into a sequence that became authoritative in the first millennium, albeit not universally accepted. By all indications they were not the first to do so, but their work may have been more radical and influential than that of others, and later intellectuals celebrated some of them and probably gave them much more credit than they deserved. These men lived in a period that is very poorly documented in contemporary sources, so we have no direct access to their work and cannot evaluate the extent of it. But when the manuscript evidence reemerges in the early first millennium we see an abundance of standardized materials, which they and others had shaped.

The corpus of omen literature preserved from the first millennium BC is gigantic, and most scholarly libraries in Assyria and Babylonia contained divinatory texts. The preserved material on clay tablets is only a part of what existed in antiquity, of course, and we have to remember that divinatory series were also copied out on wooden and ivory tablets covered with wax. Those have almost all disappeared, but an exception shows how elaborate their text could be. At Kalhu was excavated an ivory board with sixteen panels onto which the *Enūma Anu Enlil* series had been written out in two columns of minuscule script. The board itself contained a carved inscription stating that the owner was King Sargon II and that this personal luxury edition was intended for use in his capital Dur-Sharrukin.⁶¹ The abundant evidence dominates our perceptions of almost every known omen series, although most of the texts have not yet been fully reconstructed and numerous individual manuscripts remain unpublished. Modern scholarly practice often refers to the format these series had in the first millennium as canonical, but that is misleading. Parallel versions existed, often in the same library, and although scribes seem to have pursued a

certain degree of standardization, they also preserved alternative versions and introduced innovations themselves.⁶²

By far the greatest mass of the material derives from the so-called library of Assurbanipal, which in many respects has shaped our understanding of omen literature—this effect, at first due to the fact that it was the first major find of cuneiform tablets in modern times, has endured now that many other collections are known. Assurbanipal's library did not set an absolute standard for others to follow, but it certainly provides us today with the most complete record of divinatory writings. Close to half of the Babylonian literary and scientific tablets in it—746 manuscripts—were omen series, and of those 48 percent were astronomical, 14 percent dealt with extispicy, and 10 percent contained terrestrial omens. A mere enumeration of the series and the number of tablets they contained, however tedious, shows the massive extent of the corpus: the series for celestial omens, *Enūma Anu Enlil*, had 70 tablets; for terrestrial ones, *Šumma ālu*, at least 120; for birth omens, *Šumma izbu*, 24; for diagnostic and physiognomic ones, *Sakkikû* and *Alandimmû*, 40 and 23 respectively; for dream omens, *Zaḳīqu*, 11; and for extispicy, *Bārûtu*, 99. Most of these series were present in multiple exemplars, and alongside the standard versions existed “extraneous ones” (identified as *aḫû*), excerpts, and commentaries.⁶³ The number of omens recorded on a single tablet of a series could vary substantially—for example, *šumma izbu*'s sixth tablet had only 58 entries, while the fifth had slightly more than 122⁶⁴—but the total number of omens recorded in the library must have been gigantic—no one has ventured a guess of exactly how many, to my knowledge. As they did for lexical lists, Assurbanipal's scribes prepared standardized versions of the omen series with a distinctive ductus and layout, and identified them in the colophon as belonging to the king's palace. These manuscripts provide by far the most extensive documentation of Mesopotamian omens.

We know from sources from his reign itself and from later accounts that Assurbanipal wanted his library to hold a complete record of the Akkadian-language literature and scholarship of his time and that he ordered Babylonians to provide him with copies of compositions it lacked,⁶⁵ so it no surprise that the collection of omen literature found in it is so vast. Other official libraries, such as that of the Nabû temple at Kalhu, had a much more limited number of omen texts, perhaps because the majority had been carried off to Nineveh.⁶⁶ Individual Assyrians owned omen series as well. Between the years 718 and 684 Nabû-zuqup-kēna, a scribe from Kalhu, whose library may have ended

up in Assurbanipal's, personally copied many tablets of *Enūma Anu Enlil* and other astronomical series, as well as some terrestrial and extispicy omens. As I mentioned before in this chapter, the modest title of scribe, *ṭupšarru*, is misleading. Nabû-zuqup-kēna was a great scholar, although we have no proof that he was active as a diviner. Four private libraries excavated at Assur contained omen texts, but only in small numbers. The library discovered there in the "House of the Exorcists" held many incantations, but omen texts were few. Another library, of the priests Qurdi-Nergal and his son Mushallim-Baba and excavated in the provincial town of Huzurina, contained mainly exorcistic works, and only some twenty omen tablets. One can wonder about the usefulness of small selections of omen texts to a diviner—how could incomplete collections serve as reference works for them? It seems likely that when these and other men had to consult omen series, they used temple or palace libraries that had a full record. Their private collections had a different purpose.⁶⁷

In Babylonia, temple libraries held the largest collections of divinatory series—although none of those preserved reached anywhere near the level of completeness of Assurbanipal's palace library—at the same time that scholars had smaller collections. The production and consultation of divinatory texts there is documented throughout most of the first millennium BC, irrespective of who held political power: Babylonians, Assyrians, Persians, Greeks, or Parthians. The main temple of Marduk at Babylon, the Esagil, owned scholarly tablets that are explicitly dated from the mid-seventh to the first century BC and probably continued to be written into the first century AD. A large part of the collection dealt with celestial phenomena, not only continuing the existing divinatory approach as recorded in the *Enūma Anu Enlil* series, but also elaborating new models based on sustained observation—I will discuss the connections between the approaches presently. Other divinatory series are sparsely attested in the library. The Persian-era library of the Shamash temple at Sippar also contained a rich selection of omen texts, including those regarding extispicy and terrestrial and celestial phenomena, but the exact extent remains unknown. Libraries of individuals were discovered within the temple of Anu and in private houses in the city Uruk. The latter belonged to two families of exorcists (Akkadian *āšipu*), one named after the scholar Shangu-Ninurta (their tablets date to the early fourth century), the other named after Ekur-zakir (their tablets date to the late fourth and early third centuries). Although the largest groups of tablets in their libraries were related to exorcism,

both contained a set of divinatory series, with an emphasis on terrestrial omens. The Anu temple kept texts dated in the first half of the second century and of use by a family of lamentation chanters (Akkadian *kalû*) who claimed descent from Sîn-lēqe-unninni. These were predominantly of religious character, but also contained a sampling of divinatory lists. The Uruk families were thus active under Persian and Greek rulers and may even have thrived as guardians of traditional scholarship with the support of the foreign kings. They became increasingly isolated, however, although they showed great resilience. The most recent cuneiform tablet known today is astronomical and comes from Uruk—it dates to the year AD 79–80. Babylon's scholarly activity related to astronomy persisted into the first century AD as well, and the last tablet written there is an almanac from the year AD 74–75. Even if these texts were not part of the traditional celestial omen series, they were closely related to their interests, as such almanacs provided data needed for horoscopes.⁶⁸

The greater focus on astronomical phenomena is indeed one of the most important characteristics of the first-millennium BC divinatory material, both in Assyria and Babylonia. The traditional series regarding celestial phenomena, *Enūma Anu Enlil*, was part of every collection of divinatory texts of the period and often made up the largest number of tablets, and we know from reports sent to the court at Nineveh that specialists located in various Assyrian and Babylonian cities constantly watched the sky for ominous signs and quoted its entries. Other courts probably received the same information. Important changes in astronomical scholarship occurred in the first millennium. Because many phenomena are cyclical, scholars discovered patterns that enabled them to predict certain occurrences. Their observations are preserved in a record from Babylon that we call the “astronomical diaries.” The tablets on which they are found date from 652 to 61 BC, but the series very likely began in the mid-eighth century BC—this seven-century-long scholarly project has no parallel in world history, and in the first century AD Pliny may have been referring to it when he wrote that “Epigenes, an authority of the first rank, teaches that the Babylonians had astronomical observations for 730 years inscribed on baked bricks.”⁶⁹ The diaries report on features such as the positions of the moon and planets, eclipses, equinoxes, and the behavior of individual stars, all based on nightly observation, which was sometimes impossible because of clouds. Storms and other meteorological occurrences are also mentioned. Alongside these celestial events the diaries record mar-

ket prices, the height of the Euphrates River, and miscellaneous political incidents. The purpose of these texts is much debated; they certainly are not omens, but they are the work of people who were very familiar with celestial divination.

Other major developments in the practice of Babylonian astronomy happened in the first millennium BC as well: the zodiac was invented, and scholars began to formulate mathematical models to calculate celestial phenomena, writing them out fully in number sequences. Whereas celestial divination as attested in *Enūma Anu Enlil* used ideal month lengths of 30 days, mathematical texts acknowledged the correct length of the lunar cycle and calculated that in advance. Another innovation occurred under Persian rule in the late fifth century BC, when horoscopes written for individuals emerged. Earlier on, the benefits of celestial divination had been a royal prerogative. Horoscopes never became widespread in cuneiform writings, but their appearance indicates a basic change in attitude. Mathematical astronomy was a complex science with deep roots in Babylonian celestial divination and mathematics. The Babylonians' excellence in this field was the reason for their fame in the ancient world: Chaldeans, the inhabitants of Babylonia, were the greatest astronomers. Their contributions to this science had a profound impact on later cultures. A long trail of influence is clear both in western—Greek, Roman, later European—and eastern—Sanskrit, Pahlavi, Arabic—traditions.⁷⁰

From this all-too-brief survey I hope it should be clear that the massive corpus of omen series was at the same time both unified and very diverse. While discrete omen series had different preoccupations and approaches, they could share entries. Some individual omens appear both in the diagnostic series *Sakikkû*, which identified existing conditions, and the terrestrial series *šumma ālu*, which predicted events, for example. The continuity of the corpus is again remarkable, although divinatory writings were not as much a constant in Babylonian literate culture as the lexical material. The omens series, with its phraseology “If X, then Y,” came into being only in the early second millennium, many centuries after the invention of writing and lexical series. Radical changes in the practice of astronomical observation happened sometime in the first millennium, but scribes continued to study and copy the old series. We have no clear indications how this material was passed on with such consistency over so many centuries. While lexical material was taught to every scribal student early on in the curriculum, omens do not appear as school exercises. Even if scholars have identi-

fied certain manuscripts as student copies, the evidence is paltry.⁷¹ Although the repetitive phraseology would not have been that hard to master, the scribes displayed advanced knowledge of the multiple meanings of cuneiform signs, including very abstruse ones, and their skills cannot have been accessible to many. So Diodorus was probably correct when he described the education of Chaldeans, that is, Babylonian astronomers, in his *Library of History*:

The training which they receive in all these matters is not the same as that of the Greeks who follow such practices. For the Chaldeans inherit philosophy within the family. The son takes it over from his father, being relieved of all other services in the state. Since, therefore, they have their parents as teachers, they not only are taught everything ungrudgingly but also at the same time they give heed to the precepts of their teachers with a more unwavering trust. Furthermore, since they are bred in these teachings from childhood up, they attain a great skill in them, both because of the ease with which youth is taught and because of the great amount of time which is devoted to this study.⁷²

For hundreds of years, generation after generation of young men received instruction in the practices of divination and the consultation of the series relevant to their arts from their fathers.⁷³ They were highly qualified specialists whose knowledge was in demand by kings and commoners alike, and who must have felt part of age-old traditions, which they thought went back to primordial times when the gods communicated wisdom to humankind. Their survival into the Christian era surprised outside observers like Pliny the Elder. And even if most of the other elements of ancient Babylonian culture had vanished by then, they preserved an epistemology that was long paralleled by competing systems. How the massive omen corpus expressed the Babylonian approach toward knowledge is the subject of the next chapter.

CHAPTER 5

The Structure of Knowledge of the Universe

Diviners proceed like the world-famous fictional detective, Sherlock Holmes. They explore small details for clues most of us would not recognize as pertinent in order to make inferences about what has happened or is about to happen. It is not the large picture that counts, but the minute trace—the speck of cigarette ash for Holmes, the little blemish on the liver’s upper lobe for the diviner.¹ There has to be a logic in the move from the observed detail to the conclusion, however. Sherlock Holmes’s alleged deductions had to conform to contemporary rationality or his adventures would be unconvincing and lose their appeal. With diviners, we may suspend belief in modern reason, but we do expect some order and regularity—otherwise their skills would seem pointless. Some divinatory systems had written manuals to guide interpretation—the Chinese *Book of Changes* (Yijing), for example—but they are rare; many systems, such as ancient Greek divination, existed in an oral setting that excluded books. In this respect the Babylonians hold a very special position. They did not leave behind a description of the fundamentals of their divinatory explanation, but the tens of thousands of individual omens stating the clues observed and the interpretations drawn from them *must* have some coherence to them. Our challenge is to find it. We thus need a semiotic analysis of the divinatory statement, and that is what I propose to do here, using the same methods as I did for lexical lists. It may not turn us into believers in the powers of Babylonian diviners, but it should show us some of the truth in their methods.

A Structural Analysis

Just like the lexical entry, which we studied in Part II, and the legal paragraph, which we will study in Part IV, the omen was always part

of a list that presented a series of individual cases. With its interest in every aspect of the universe, divination's scope had no limits, and each ominous occurrence deserved its own entry in the texts. The parallelisms with laws and lexical entries are clear: omens read like legal clauses, and the endless succession of minor variants easily reminds us of the word lists. A structural analysis is thus as applicable to the omen series as it is to the two other genres.²

The Syntagm

The individual entry in the omen lists is at the same time the simplest and the most startling element of all the three genres studied here. The structure of the syntagm is very straightforward and is rigorously applied over a mass of writings and an enormous time span; but the reasoning behind the individual statements mostly escapes us. Every omen has the same format: if X, then Y; we identify the two elements as in the study of Graeco-Roman divination with the terms *protasis* and *apodosis*, “question posed” and “return.” Unlike in the law codes, there are no relative clauses, “whenever . . .,” or declarative sentences in omen series.³ In the protasis events are described as completed or as a state of being.⁴ The diviner thus interpreted an ominous event while it happened or when it had just taken place. The apodosis states what the consequences of the portent will be or expresses a general condition, such as chaos, happiness, or the like.

The protasis describes the event in broad terms or as qualified with further conditions. For example, in an extispicy text studying the sacrificial animal's heart we find both the simple “If the apex of the heart is bright to the right” and the more complex “If the apex of the heart is surrounded with stings and its stings are dried out and the apex of the heart is loose and red.”⁵ The diviner observed the details needed to draw a conclusion, and each protasis had to contain enough information to do so. As was true for all Babylonian lists, every case was awarded its separate entry. The few exceptions to this rule always involve numbers, for example: “If atop of the increase (either) two or three concavities are situated.” Rather than considering these combinations of two potential ominous occurrences, however, it seems better to regard them within the paradigm as completing a series of options.⁶ In essence, the protasis does always describe a very specific omen.

Just as the protasis almost always describes a single event, the apodosis almost always declares one possible outcome, which can be ex-

pressed in ways ranging from very general terms to very specific ones, for example, “distress,” and “the enemy will besiege a city belonging to your auxiliaries but will not seize it.”⁷ Some omens led to multiple interpretations, however: the apodosis can state explicitly “its second interpretation is,” or just list two outcomes in succession. For example,

If there are four palace gates—an uprising of a usurper king; its second interpretation: produce will not enter into the palace.

or

[If a hole is] situated [in the . . . of the Presence]—the fully loaded boat will sink, or: a pregnant woman will die in labor.

The second example shows how the alternatives were not unrelated: the loaded boat was a customary metaphor for the pregnant woman. In other cases, too, there were connections between the two interpretations, and the diviner-scholar seems to have utilized different hermeneutic principles to arrive at distinct yet related conclusions. One could read the words in the protasis literally, but also interpret the cuneiform signs used to write them by varying their readings in the same way that the author(s) of the *Babylonian Creation Myth* developed the names of the god Marduk.⁸ The specificity of the predictions can be striking: “a lion, after having killed someone in front of the great city-gate, will be killed,” or “the wife of this man will burn down the house by setting fire to the bed.”⁹ But they can describe general outcomes as well, such as happiness, being favorable, or chaos.¹⁰

The two parts of the omen were thus relatively simple: with few exceptions both protasis and apodosis made straightforward statements that were often very exact in nature. The casuistic format of the omen lists made it possible to restrict individual entries to specific occurrences. But what connected the two parts? Why was a certain protasis the sign of a particular apodosis? For the system to have any credibility to its users, there had to be a valid connection,¹¹ and while we cannot now understand its rationality in detail and probably never will, we should appreciate its coherence. In order to do so we need to reject the urge to distinguish between the possible and the impossible, the real and the absurd. Modern astronomy tells us, for example, that most omens concerning the planet Jupiter in the series *Enūma Anu Enlil* are impossible, as the planet never crosses paths with the fixed stars mentioned in the protases. This should not lead us to think that the Baby-

lonians who formulated them were ignorant of the fact. They also mentioned the appearance of the sun in the middle of the night. They saw no difference between these (in our opinion) absurd omens and others we consider possible, so we too should approach the omens on the same level. All recorded omens were part of the same Babylonian system of logic.¹²

A first indication of the logic behind every single entry in the omen lists is the formulation itself.¹³ When the genre of omen lists originated in the early second millennium each statement read “If (*šumma* in Akkadian) . . . , then”; in the first millennium the conditional “if” was dropped and protasis and apodosis were listed side by side, introduced by a vertical check mark indicating a new entry, as in lexical lists and other writings.¹⁴ The statement became X—Y, which we should read as “X implies Y.” The omens drew conclusions, expressed in the apodoses, from established premises stated in the protases. Thus like Sherlock Holmes, they used an inferential system of reasoning. The omen lists display a scientific logic that was consistent throughout the myriad single cases.

When we look at omens as expressions of inferential logic, it becomes irrelevant whether or not their content was possible. They function at the level of metaphysical rather than physical possibility. This fact invalidates one of the common explanations of the relationship between protases and apodoses—empirical observation—and at the same time removes the apprehension about the absurdity of many omens. For a long time modern scholarship saw at the core of the divinatory lists a set of omens recording sequences of events that had occurred in reality. The primary basis for this idea was a small group of so-called historical omens, which refer to well-known rulers, mostly of the third millennium. For example, “If the heart is like the testicle(s) of a sheep—it is an omen of Manishtushu, whom his palace killed” might have recorded an actual extispicy observation before the murder of a king of the dynasty of Akkad in the twenty-third century. Many scholars consider such omens to demonstrate an empirical foundation for divinatory lists.¹⁵ But they are usually so vague as to be meaningless—“King Sargon ran into darkness and then saw light,” for example¹⁶—or else they contain clear interpretative elements such as word plays (which I will address later in this section), so that it is difficult to place much trust in them. None of the events these historical omens report are confirmed in non-literary historical sources. There is a large body of scholarship on the value of these omens to the modern historian, and opinions range

from crediting them with providing the only reliable—unedited—historical information to rejecting the stories as totally made-up.¹⁷ I side with the skeptics, but the question is of little relevance here, as the entire idea of empiricism assumes a mindless collection of observations and a *cum hoc ergo propter hoc* reasoning. It ignores obvious interpretative schemes in omens, including the historical ones. Those schemes should draw our attention.

The connections between protases and apodoses were rooted in a hermeneutic system that enabled the diviner-scholar to see one element and think of another. Mesopotamian scholarship did not usually reveal methods of interpretation explicitly, but there were exceptions, namely in commentary texts. The final chapter of the large extispicy series was such a commentary entitled *Multābiltu*, “interpretation,” known only from first-millennium Assyrian and Babylonian manuscripts.¹⁸ Its first tablet is very unusual in that it tries to explain methodically how words in the protasis and the apodosis relate to one another. It reveals some of the principles used—and also how in typical Mesopotamian fashion elaborations led to entries where the connections were indirect and could only be understood by knowing the intermediate steps. The first column of the text lists words from protases, the second words from apodoses, and the third provides a sample omen. There is a great deal of artificiality in the entries, including much vocabulary that is not found elsewhere, but three principles are clear: words are equated because they are homonyms, because they are semantically related, or because (albeit rarely) they are outright synonyms.

zuqqurtu zakār šumi šumma rēš manzāzi zuqqur niš rēši rubê ummāni šum damiqti ileqqe, “Elevation = fame; If the top of the presence is elevated—promotion of the prince, my army will win fame,” in which *zuqqurtu* (“elevation”) and *zakār šumi* (“fame”) sound alike.

epiqtu išda kīnātu šumma ḥašê imitti uppuq išda kina, “Massiveness = stable foundations; If the right side of the lungs is massive—stable foundations,” in which *epiqtu* (“massiveness”) and *išda kīnātu* (“stable foundations”) are semantically related.

mağšaru danānu šumma ina imitti marti kakku šakinma šapliš iṭṭul kakki mağšari kakki Šamaš, “Power = strength; If there is a weapon on the right side of the gallbladder and it points downwards—it is a weapon of power, a weapon of Shamash,” in which *mağšaru* (“power”) and *danānu* (“strength”) are synonyms, as the lexical list *malku* = *šarru* indicates.¹⁹

Many parallels remain obscure, and the text shows how at least some of them came about through elaboration, just as we saw earlier in lexical lists. The first four lines of the tablet contain these pairs:

<i>arīktu</i> (“length”)	<i>kašittu</i> (“success”)
<i>alīktu</i> (“looseness”)	<i>kašittu</i> (“success”)
<i>uššurtu</i> (“looseness”)	<i>kašittu</i> (“success”)
<i>šūšurtu</i> (“straightness”)	<i>sakāp nakri</i> (“routing the enemy”) ²⁰

The author(s) clearly played around with homonymy: because *arīktu* in the protasis meant success in the apodosis, its homonym *alīktu* did so as well. And because *uššurtu* was a synonym of *alīktu*, when the word appeared in a protasis, it too indicated success. The next entry, *uššurtu*’s homonym *šūšurtu*, foretold the idea of success more intensely as a rout. These parallelisms came about in indirect ways that are untraceable to us when we see single entries alone.

Other commentaries reveal practices that relate closely to the cuneiform writing system and the plurality of readings for individual signs. This explanation of an extispicy omen, for example, reads:

If the well-being is like (the sign) AN: AN (means) “sky,” [. . . AN (means)] “upper” (and) “first in rank”; it (the well-being) rises towards the thin part of the gallbladder [(. . .)—the . . .] will reach the highest rank.

The AN-shaped mark on the liver was thus connected to “sky” and “upwards,” both meanings of the cuneiform sign, as well as through semantic association to “first in rank.”²¹ A commentary on celestial omens, as quoted by the seventh-century Babylonian scholar Zakir in a letter to his Assyrian master, plays around with the homophony of logograms:

[If the moon’s] horns at its appearance are very dark—[disbanding of the fortified] outposts, [retiring of the guards]; there will be reconciliation and peace in the land.

GI = “to be dark”

GI = “to be well”

GI = “to be stable”

Its horns are stable.²²

Indeed, the Sumerian words GI, “to be stable,” and GI₆, “to be dark,” are homonyms, while GI₄ as part of the compound šu . . . gi₄ had an Akkadian equivalent that derived from the verb “to be well.” The scholar used the same rules as the interpreters of Marduk’s names mentioned in

chapter 1. Unfortunately, commentaries are often opaque to us, and it is clear we will never be able to establish a full lexicon of divinatory terms—figurative language is always culturally dependent, and we are not familiar enough with the Babylonians’ culture to recognize many things they would take for granted. It is possible to recognize some of the principles at the basis of all omen interpretations, however.

Homonymy, a system of punning based on similarities of sound, was the most obvious principle. Its use was aided by the Semitic structure of Akkadian vocabulary in which root consonants were the building blocks of multiple words. A much-quoted example is one of the so-called historical omens, which survived for the entire history of Babylonian divinatory writing. In Old Babylonian times it read:

If in the liver the part called the palace gate is double, if there are three kidneys, and if on the right-hand side of the gallbladder two clearly marked perforations (*piššu*) are pierced (*paššu*)—this is the omen of the inhabitants of Apishal whom Naram-Sin made prisoner by a breach (*piššu*) in the wall.

The word play revolves around the three consonants *plš* rendering not only ideas of breaching, but, through a metathesis, also the city name Apishal.²³ In the first millennium the apodosis of this omen became more elaborate:

Omen of Naram-Sin, [who by] this [omen] marched against the city of Apishal, made a breach and captured Rish-Adad, the king of the city of Apishal and the vizier of the city of Apishal.

But, as we saw, Babylonian scholars were always eager to tinker with texts, and they played around with this passage in multiple ways. Two strands developed, one maintaining the word play and the other removing direct traces of it. Instead of the word “breach” in the protasis, the second strand employed synonyms, such as split and hole, which do not contain the root consonants *plš* in Akkadian:

[If the liver] has [2] fingers and a weapon is placed on the right side and points to the left, there are 7 splits (written with the logogram *du*₈, *piṭru* in Akkadian) [in front of it], there is a hole (written with the logogram *bur*₃, *šilu* in Akkadian) on the left side of the gallbladder.²⁴

The connections between protasis and apodosis in this first-millennium version of the omen are incomprehensible without the knowledge of

earlier texts. Clearly, the ancient scholars copying this omen played around with it, elaborating certain parts and substituting words in others. Only rarely can we uncover such moves.

Not always the same Semitic roots were involved in homonymy, and associations could rely on other sound similarities. Two ominous signs led to the outcome of a usurper, for example: “If the gallbladders are five (Akkadian *ḥamiš*)—an usurper king (Akkadian *ḥammê*) will appear on the scene,” in an Old Babylonian omen, while “If the coils of the intestine look like the face of Huwawa (written logographically *ḪUM.ḪUM*)—it is the omen of the usurper king (Akkadian *ḥammê*, written logographically *IM.GI*) who ruled all the lands,” in a late Babylonian list.²⁵

The diviner was a reader, and resemblances with cuneiform graphemes were very important in both extispicy and physiognomic omens. In the first discipline, a small number of relatively simple signs were involved. Some explanations seem straightforward: a sign with crossed wedges indicated discord, a straight line with a bulky head sexual intercourse.



discord



sexual intercourse

Other explanations required knowledge of the multiple readings of cuneiform signs, for example:

If the well-being is like the TAR-sign—a dish at the king’s meal will break, the lamplighter will tremble, or the cup will shake in the cupbearer’s hand.

We can understand this when we know that an alternative reading of TAR is *ḥaš*, “to break,” while the Sumerian TAR-sign can also stand for the Akkadian verb *tarāru*, “to tremble.” There is a 57-line-long section in the physiognomic omen series *Alamdimmû* that identifies marks on the patient’s foreheads that look like cuneiform signs, some more complex than those in extispicy. Except when the cuneiform signs are very simple, such as “If there is a NINDA-sign (i.e., bread)—the man will hunger for bread,” the interpretations elude us, however.²⁶

Semantic association seems to have been the main interpretative tool. It has long been recognized that a sign on the right was positive, while the same sign of the left was negative, although all depended on the context in which it appeared. If it was written on a malformed birth,

the reverse was true, as the misshapen creature itself was a negative sign; what was positive to the Babylonian or Assyrian was negative to the enemy; if the sign appeared more than once, an even number of occurrences was positive, while an odd number was negative. These simple rules were developed into the greatest details in the paradigms of the lists, and in the next section we will explore them in that context.²⁷ There was also a system of more intricate parallelisms. When looking at a body, the head referred to the king, the neck to royal power; the eyes related to water because the Akkadian words for “eye” and “spring” were the same (*īnu*); the mouth had a connection to eating and speaking, including lying and inciting rebellion. Something resembling a lion brought to mind royal power, a contracted element indicated loss of control, blood on the wall of a house predicted the death of a son; and so on.²⁸ A mixture of connections could tie the protasis to the apodosis, as in this gem of human psychology:

If in the palace of the finger two designs are drawn together and between them lies the request-mark—the wife of a man has become pregnant by another man and she will constantly pray to the goddess Ishtar while looking at her husband’s face: “I will make what is inside my belly look like him!”

The mark in between the two designs recalls the lover who came between the woman and her husband, while the mark itself, called the “request,” obviously suggests the woman’s secret prayer.²⁹

The associations between protasis and apodosis need not be limited to straightforward unmediated analogies. The scholars who made them were literati; familiar with other Babylonian writings, they could refer to them. Thus when they saw an eagle’s footprint in a house or a city, they related it to the monstrous Anzu bird of literature and its destructive actions described in the epic devoted to it.³⁰ The whole system of inference was based on similitude: X implied Y because Y resembled X. The recognition of the resemblances was not always direct, however. While, for example, a crown in the protasis suggested the king in the apodosis, the diviner-scholars developed both elements of the omen by investigating synonyms, homonyms, word plays, additional qualifications and details, multiple readings of the cuneiform signs to write them out, and every other possible aspect. This system of reasoning makes it meaningless for us to look at an individual omen. We need to explore the paradigm to see the interpretative system at work.

The Paradigm

Despite our inability to understand what connected most apodoses to their protases we can grasp the structure of the individual omen well: the syntagm “X implies Y” is straightforward. Omens appear to us in lists that are far from simple, however, gigantic in size and extremely varied in contents. In the first millennium the extispicy series contained 99 tablets, celestial omens took up 70 tablets, and terrestrial ones at least 120, to name but the most prominent series. Individual omens were placed in a paradigmatic context that involved constant references to those that preceded and succeeded them. It is obvious that these series did not collect statements formulated independently but that the omens were created within the lists. Every entry has to be considered within its paradigm.

The first step for the composer of any list was determining what elements had portentous value and how to organize them. When looking at the night sky millions of features potentially could have been important to the diviner and a set of critical ones had to be established. Celestial omen lists show that the authors grouped individual stars into constellations, that they categorized phenomena according to four colors, as either bright or dim, as happening in one of four cardinal directions, and as above or below and in front or behind other features. Many other characteristics could have been recognized—another color scheme, greater nuances in brightness or location, etcetera—but for system to work the number of variables had to be reduced to a manageable set.³¹ In extispicy too there were numerous features of the sacrificial lamb that might have been significant, but the diviner looked at only some. An Old Babylonian collection of extispicy-prayers contains an unusual pair of addresses to the gods of divination Shamash and Adad, asking them to indicate favorable conditions on the right side of the animal and unfavorable ones of the left. They show the sequence of features the diviner investigated. He started on the outside with the head, throat, flesh, and tail. Then he studied the inside, looking at the breastbone, lungs, heart, diaphragm, multiple parts of the liver including the gallbladder lying on its top, and finally other entrails, including the intestines. Not all these received equal attention in the omen series, but the focal points of this examination are reflected in the large extispicy series of the first millennium. Its organization was standardized by then and included ten chapters:

- I: four tablets observing the animal before and after slaughter, including the condition of the breastbone;
- II: eight tablets devoted to the intestines, which had to be removed in order to uncover the other organs;
- III–V: twenty-seven tablets devoted to parts of the liver;
- VI: ten tablets on the gallbladder;
- VII: eleven tablets devoted to the “Finger,” that is the thumb-shaped caudate lobe of the liver;
- VIII: at least eighth tablets about the “Weapon,” that is small outgrowths on the liver and other organs;
- IX: fourteen tablets on the lungs;
- X: commentaries on the series, such as *Multābiltu*, mentioned before.³²

Each organ had its parts, which were examined in sequence, especially the liver, the most omen-rich feature of the animal. Modern scholarship has investigated in detail how the Babylonian terminology relates to that used in modern anatomy. The “palace gate,” for example, certainly is “the umbilical fissure that divides the *lobus sinister* from the *lobus quadratus*.”³³ But clearly the ancient scholars recognized distinctions modern anatomists find meaningless and vice versa. The minutiae of this comparison, however fascinating, are not important to me here. Just as not all organs were analyzed in equal detail, not each area of the liver received the same amount of attention. What the Babylonians saw as the right side—the *lobus sinister* in modern anatomy—was more important than the left. Still they approached all parts similarly. They divided them into zones—top-middle-bottom; right-middle-left—and described features like presence-absence, multiple marks, visual resemblances, damage, rotation, contraction-expansion, and so on.³⁴ Other omen series followed patterns suitable for their subject, such as the investigation of the body from head to toe in physiognomic omens. The enormous compendium of terrestrial omens, which investigated every aspect of the human environment, started in the center of the city, then moved to the agricultural areas around it, and finally to marshes and rivers beyond. In each of the zones it looked for similar signs and when it addressed human activities it did so roughly following the course of a day.³⁵

Those principles were at the basis of the organization of the series and the diviners expanded them by integrating them into more intricate

paradigms. Because of the abundance of material many of the principles of elaboration they used are obvious to us, although there were probably still others that escape us.³⁶ The omen series display a generative paradigm akin to languages' ability to create an infinite set of sentences with a finite list of words. The sequences of omens in the lists show simple and complex patterns of gradation, from binary oppositions to lengthy repetitions of the same sequences of variants.

Binary opposition has been called the first paradigm of divination: through it successive omens contrast the condition or location of ominous marks to arrive at opposite conclusions.³⁷ Human thought often expresses itself through dyadic pairs; structuralist anthropology sees it as one of the basic features of the ordering of the universe, although one can also see it as a means by literates to bring order in oral chaos.³⁸ Habitually there is a value judgment attached to the polarity with one element considered positive, the other negative. The alleged Pythagorean Table of Opposites as Aristotle reports it considered all principles of reality to be made up by ten binary pairs, including odd/even, right/left, male/female, straight/crooked, light/darkness, and good/evil. Some of these pairs may be universal, such as right over left (although this is contested),³⁹ and not surprisingly appear in Babylonian divination as well. The initial concern of the diviner was whether or not there was a sign, thus absence/presence was the first observation made. An unmarked liver of the sacrificial animal, for example, indicated an auspicious future. When signs appeared it was important to the diviner whether they were at the right or the left, top or bottom, front or back, whether they were bright or dark, bent to the right or to the left, moved from the right to the left or from the left to the right, and so on. If one condition was positive, its opposite was negative. The Babylonians' attitude in this respect was so rigorous that they created very fanciful dyads. Thus in observing the exta they saw contrasts like these: looking like a pin or looking like a hammer, being fastened shut or being wide open, being massive or like a testicle. For example:

If the heart is massive—an omen of Gilgamesh who had no rival
If the heart is like a testicle—an omen of Rimush, whose servants
killed him with their cylinder seals.⁴⁰

One could say that binary oppositions dominated the Babylonian mind-set, something that is also visible in other genres of writing.⁴¹

But principles intersected and when combined could turn around the standard conclusion. The right was basically propitious while the left

was bad, but in the series *šumma izbu* that reported on anomalies, it was the reverse. Since anomalies were a bad sign their appearance on the right was inauspicious but on the left positive.⁴² In extispicy a bright mark on the right was good, it was bad on the left, while a dark mark on the right was bad, but on the left good. For example:

- If the horn of the “bird” is bright on the right—divine favor,
well-being.
- If the horn of the “bird” is bright on the left—grief.
- If the horn of the “bird” is dark on the right—the sick man will die,
grief.
- If the horn of the “bird” is dark on the left—the sick man will
recover; as for warfare: conquest.⁴³

Although these binary opposites are a structuralist’s delight, they are much too simple to explain the creativity of the Babylonian diviner-scholar in full. More complex gradations, which created lengthy chains of omens, existed as well. They fell into two categories: an agglutinative type where omens became more specific, and a truly paradigmatic type with set sequences applied to various ominous occurrences. Conceivably the first method in which riders were added to the protases of successive omens could make up endless lists with increasing specificity, but in practice most of the time we only find groups of two or three. More often the qualifications referred to various features, as in this example where the sequence looks at the waist, head, and mouth of malformed newborns that are crossed like a cross:

- If there are two malformed newborns and they are crossed like a
cross . . .
- If there are two malformed newborns and they are crossed like a
cross and they are joined at their waist . . .
- If there are two malformed newborns and they are crossed like a
cross and their neck is turned and they have only one head . . .
- If there are two malformed newborns and they are crossed like a
cross and the mouth is closed and they go side by side . . .⁴⁴

More prevalent was the creation of sequences of the type we saw in lexical lists as well. They related to all aspects of life: time, place, social hierarchy, appearance, sound, etcetera, and theoretically permitted the creation of innumerable omens. If one could imagine a woman giving birth to twins or triplets, one could easily increase the number of children to four, five, six, seven, eight, and even nine. In theory the sequence

could go on indefinitely, but in practice the numbers were more limited and often confined to pairs: two or three, four or five, etcetera. But the potential of the paradigmatic pattern is obvious. Other configurations were more restricted in the number of omens they could produce. Spatially ominous signs and their outcomes could be located on the top, middle, or bottom; on the right, left, or right and left; in the north, south, east, or west; and so on. Once one had covered the four cardinal directions, however, the paradigm was exhausted. Likewise ominous events and their outcomes could be situated in time—at dawn, noon, or dusk—or they could affect various social classes. Visually a sign could have different colors, and we find the same sequence here as with lexical and literary texts: white, black, red, speckled, and yellow. Natural features could dictate the options: a scorpion could sting someone's big, second, middle, fourth, or little toe. Things could happen in each of the twelve months of the year. The verbs in successive protases or apodoses could be grammatical variants and there could be word play between consecutive omens. All these techniques enabled the authors to create entries that together built up an immense network of cases. The sum total was a coverage that was still incomplete—how could one ever predict everything—but in essence comprehensive. The method employed can be called *pointillist*: through the use of an infinite number of very specific cases the scholars painted a full picture of an area of divinatory science, laboriously setting out each one in relationship to many others. As in a painting where each dot by itself is meaningless, single omens had little to say, but combined in a large totality they provided a full message.⁴⁵

Similitudes

Resemblance is the force that ties the elements of the omen lists together, both horizontally, the protasis to the apodosis, and vertically, each omen to those that come before and after it. X leads to Y because Y resembles X, and one omen follows another because they are comparable. When reading through omen lists one sees a long chain of likenesses, which their authors saw as the key to truth. Their attitude reminds us of the conditions Michel Foucault described for European intellectual history on the eve of the scientific revolution.⁴⁶ While it would be a mistake to see Babylonian and sixteenth-century European approaches as the same, a closer look at the latter may help us comprehend the ancient practices better. In Foucault's analysis four forms of

similitude dominated: convenience, emulation, analogy, and, most importantly, sympathy. All four are apparent in the Babylonian divinatory corpus as well, as I will show with single examples that could easily be multiplied. Convenience derives its strength of similarity from sharing the same space, as do the right and the left in the divinatory organ. Emulation does not require contiguity but makes elements at a distance resemble each other, like the perforation in the gallbladder and the breach in the wall. Analogy enables the comparison of relationships, such as the power of the lion and that of the king. And ultimately the whole system works because of sympathy, the power that makes it possible to associate—similitudes can only appear between items that can be associated. The rules of how to recognize these similitudes are never explained to us in Babylonian writings, but they must have been clear to the ancient diviners.

The possibilities of comparability were almost limitless, as the scholars working on omen lists established connections in so many different ways. They considered visual and aural aspects, not only of the ominous signs but also of the way in which they were recorded in writing, and the multiple readings of cuneiform signs increased the number of options immensely. Diviners saw connections between elements that were fully distinct in the eyes of others. They equated the perforation in the gallbladder with the breach in the wall, because they knew that both were written with the same word, *pilšu*. They knew that a celestial observation in the morning had different yet analogous meanings at noon and in the evening. And the similitude did not have to be direct; sometimes an unrecorded intermediary created the link. As we saw before, a split (*piṭru* in Akkadian) in the liver recalled a breach (*pilšu* in Akkadian) in the wall of a city, because *piṭru* was the synonym of “perforation” (*pilšu* in Akkadian) of an organ. All the principles that provided logic to the syntagm and the paradigm were active simultaneously: homonymy, visual resemblance, semantic association, patterns of gradation, sequences based on time, place, appearance, and so on. In essence, every element of the omen lists was linked to all the others. Pursuing similitudes, the various omen series built up a system of knowledge that was all-encompassing and fully interconnected. Although each series focused on a specific field of inquiry—the sky, earth, the human body, etcetera—they were all related to one another and together encompassed the entire universe. As the *Babylonian Diviner’s Manual* stated, the signs of heaven and earth were interconnected.⁴⁷

From Text to Reality

The generative principles explain two aspects of the lists: why they are so long and why they include statements we consider absurd. The first needs no further discussion except to stress again the remarkable abundance of the material. The second is more problematic, or at least the way it has been treated in much modern scholarship is. Many see a progression from the reasonable—the birth of triplets, for example—to the unreasonable—nonuplets—as if there was also in the Babylonians' minds a dividing line between the two. Years ago Jean Bottéro pointed at the ability to cross that line as a great moment in intellectual history: "From a knowledge based on pure observation *a posteriori*, starting from individual cases that were fortuitous and unforeseeable, divination became thus an *a-priori* knowledge."⁴⁸ He called this the birth of the scientific spirit, but mistakenly imposed modern concepts of reasoning onto the ancient Babylonians, I think. He assumed, as do many others, that at the core of the omen lists stood sets of empirically observed events, upon which elaborations were constructed, taking their subjects into the realm of the impossible. Yet, there is no indication whatsoever in the lists that the authors saw a distinction between the reasonable and the absurd, or that there were a number of real omens and others that were only potential, if not clearly impossible. The authors of the lists formulated every omen in the same way and gave it the same status.⁴⁹

Naturally the texts were not just literary creations for their own sake; they were also the tools of trade for the diviners whose task it was to observe and interpret signs. How they established links between events observed in reality and the divinatory series is not very often documented, but there are exceptions. The accounts that make the connections between observations and omen series explicit show, I will argue, that the texts were primary and the observations secondary. Diviners did not witness signs in reality and then tried to find correspondences in the series, but they knew the contents of the series and then tried to find their elements in reality. Actual testimonies of omen consultations are preserved from four brief moments in Mesopotamia's long history: eighteenth-century Syria; seventeenth-century Babylonia; late-second-millennium Babylonia; and eighth- and seventh-century Assyria. Clearly these are the accidental remains of a much larger documentation.⁵⁰

The earliest reports known come from eighteenth-century Mari in Syria and were embedded in letters to the court that sometimes dis-

cussed other subjects as well. All the testimonies involved extispicy, and most included brief comments on features of the sacrificial animals. Among these, some more systematic accounts of the diviner's actions survived, including this one:

In my first examination the view was there, the path was there, the palace gate was healthy, the well-being was there, the bases of the shepherd were attached on the right and on the left, the finger was healthy, the increment was enormous, the lungs and the heart were healthy, the top parts that I obtained were healthy.

In my verification the view was there, the path fell on top of the left seat, the palace gate was healthy, the well-being was there, the bases of the shepherd were torn on the left and attached on the right, on the left the finger was broken, the increment was enormous, the lungs, the heart and the top parts that I obtained were healthy.

The diviners usually only asserted that the signs were auspicious (or not), but at times they quoted apodoses from omen series. Those quotations usually appear in reports that give no details about the extispicy reading, with one exception:

The stomach was black on the left and the coils of the colon were swollen. The omens that I have obtained mean: "Acquisitions, the king will seize the city by the force of arms."

The quotations of apodoses show that omen lists were well known to the haruspices at the Mari court, although only two short lists have been recovered so far.⁵¹

Soon afterwards diviners in Babylonia made up special records devoted in full to their observations. The vocabulary and approach shared with the omen series is obvious, although there are clear distinctions in aim and detail. Take this text from the year 1631 as an example:

One sheep for the performance of the ritual of extispicy concerning the well-being of Beltani for her family god.

The extispicy: The top of the presence is protuberant, it has a path, the left seat of the path is there, it has a strength, the well-being is destroyed, a weapon of assistance is there, a moved weapon, the gallbladder is stable on the right side, in the left side of the gallbladder there is a foot, the right side of the finger is cleft. The donkey of the right lung sticks out, there is a foot on the

right and left lung, the middle finger of the lung is split on the right, 12 are the coils of the colon.

It is favorable but has adverse [signs and a]check-up is necessary.
Date.

The haruspices inspected the parts of the entrails that featured prominently in the omen series and only identified marks of concern in those lists. They followed an established order in their examination of organs and the features on them, an order that corresponds to the sequence of the tablets found later in the first-millennium version of the extispicy omen series.⁵² They did not draw the detailed conclusions we find in the apodoses attested in the contemporary series, and only reported whether the reading was auspicious—the usual result—or not. There is one exception to this in the entire group of some forty reports from seventeenth-century Babylonia. In it the haruspex wrote down an apodosis for each part of the entrails he analyzed, for example: “The front of the path that is on the left ground is turned to the crucible—unsuccessful attack by the enemy.”⁵³

It is clear that the authors of the reports knew the omen series, looked for the features addressed in them, and were aware of the apodoses formulated there. That they most often did not quote apodoses, although they had the knowledge to do so, likely was due to the fact that their clients asked questions divinatory series ignored. With one exception,⁵⁴ the customers were common people interested in the outcome of simple events, while the omen series dealt with matters of state, such as whether or not the king would succeed in his military adventures. The prediction of an unsuccessful enemy attack in the example above sounds out of place—the client worried about the success of a marriage. So the diviners had to make up answers as they went along in their investigation of the animals that people brought them as payment for their services, and as pointed out before, most often they concluded that things would be fine.⁵⁵

If we accept that the omen series, with its boilerplate formulation “If X, then Y,” was an invention of the early second millennium, inspired by the unsettled political conditions of the time, as I do, then we have to imagine that diviners had to shift tactics radically as a result. To be clear: divination was not invented in the early second millennium; the divinatory list was. The latter was composed in a court setting for the benefit of the king and contained elaborate paradigms that connected features recognizable in intestines of sacrificial animals, celestial phe-

nomena, oil spills, and the like to matters of state. Scholars rapidly generated a vast number of options by employing the principles I have described before. These series became the tools of trade for diviners, who now asked the gods to leave ominous signs in the sacrificial animals in the form that they were listed in the series, as the Old Babylonian prayers to Shamash and Adad show:

Let the gallbladder be light on the right, let it be dark on the left;
let the head of the gallbladder be light on the right, let it be dark
on the left.⁵⁶

All diviners—or at least all those who left us writings—knew the series, which told them what features to investigate. The recorded apodoses were relevant to the clients of the diviners working at royal courts, but diviners consulted in private matters rather used them only as guides on whether the outcome of their readings was auspicious or not. Most important, however, was the fact that the series told them how to go about their investigations.

Later-second-millennium Babylonian extispicy reports resemble the earlier ones in that they involve private individuals rather than kings and that they describe the condition of the organs without mentioning apodoses. An enigmatic aspect of their format is that they collect multiple divinatory readings, up to ten in one manuscript. The few dated records in the corpus all derive from the fourteenth century, but despite the time difference they show a remarkable continuity in procedures with those of the seventeenth century. Take this one, for example:

One sacrificial fattened sheep for the goddess Nanaia. It has a presence, the left side of the presence is X (unclear sign), the left path lies flat against the right path, the narrowing is split at the right side, the strength is healthy, the gallbladder is stable on the right side, the left side of the gallbladder is split, on the increment there is a design, the lung is stretched at the right side, 12 are the coils of the colon.

The *haruspex* investigated the same order of organs as in the seventeenth-century example I just quoted and described their features in the same way. The connections with the extispicy series are very strong in these reports in that the language they use closely resembles that attested in protases of the first-millennium compendium, including what seem to be direct quotations. The authors of the reports clearly knew this series in an earlier version.⁵⁷

The overlap between divinatory lists and reports reached its fullest extent in the eighth and seventh centuries, when omen readers from several Assyrian and Babylonian cities sent missives to the Assyrian emperor. More than 550 of them have survived from Nineveh, dating between 708 and 648, and only three from Assur, from the late eighth century. The main element in the reports was a single or multiple quotations from divinatory series. By far most of the reports mentioned celestial events, and only a few of them described abnormal births and other terrestrial occurrences. Because they were addressed to the king, whose fate was the primary concern of omen compendia, the apodoses were relevant and included in the reports. All omen quotations used the literary idiom of the first millennium that appears in the series as well, while the writers recorded other information, such as the diviner's name and occasional explanations and interpretations, in the local dialects.⁵⁸ The reports are often very terse:

If the moon becomes visible in Month V on the 30th day—dispersal of Akkad.

If the moon becomes visible on the 30th day—there will be frost,
variant: rumor of the enemy.

From Urad-Ea.⁵⁹

While at first glance it may seem that the authors devoted most of their time to observation and sought suitable omens in the series to interpret what they saw, closer reading shows that this was not the case. Many of the protases they quoted contain impossible occurrences. For example:

If the moon makes an eclipse on the 21st day of month VII and sets eclipsed—they will take the crowned king in fetters from his palace.⁶⁰

No eclipse can take place on the 21st (a lunar eclipse can only occur the night of a full moon, that is, days 14 to 16 of the Babylonian lunar month), so the writer did not report something he saw, but quoted a line from the celestial omen compendium where such impossibilities were typical. The reports presume the primacy of the omen series. As we saw, the ability to create omens was limitless, as multiple similitudes permitted the elaboration of lengthy paradigms irrespective of whether they had a connection to actual fact. Reality did not precede the text; the text preceded reality. Only what already appeared in the divinatory series was valid, and if it had not been written down it was

unimportant. The Assyrian diviner Balasī wrote to his master when reporting a list of omens concerning fog: “If a fog rolls on the day of the city god—this is not written down, this is a propitious fog, it is not considered bad.”⁶¹ Somehow no scholar had thought of this option when constructing omens, so the occurrence was meaningless.

It boggles the mind that the ancient diviners were able to locate suitable omens in lists containing thousands of entries, but the reports show that they could. The writers regularly identified where they found their interpretation, in the main series, extraneous versions, commentaries, and so on.⁶² Knowing the series, the diviners tried to witness the incidents outlined in them. The chief diviners of the first millennium had the title “scribe,” a designation that emphasized their rapport with the written text. As we saw in the previous chapter, they mastered the mass of divinatory writings, including the celestial series *Enūma Anu Enlil*, terrestrial omens (*šumma ālu*), those regarding anomalies (*šumma izbu*), and hemerologies. The so-called *Diviner’s Manual* lists the titles of omen series with the directive

In total twenty-five tablets with signs occurring in the sky and on earth whose good and evil portents are in harmony(?). You will find in them every sign that has occurred in the sky and has been observed on earth.⁶³

A large part of the diviner’s job was the preservation of the texts, the copying of the series, and in the Hellenistic era it seems that the work of the *tuṣṣar Enūma Anu Enlil* was reduced to that task.⁶⁴ Naturally, observation of the actual world was crucial as well. The haruspex was a “seer” (*bārû*), and all diviners sought out ominous signs and explicitly asked the gods to send them. Observation and interpretation went hand in hand, but the series told diviners what to look for and how to interpret it. They were developed independently from observation on the basis of the principles I described earlier in the chapter. They set the parameters within which tangible divinatory activity took place.

The primacy of the series is clear in the first millennium; it seems likely that the same was true from the moment divinatory lists emerged, that is, in the early second millennium. The omen list by its very nature allowed for boundless creativity. Those who developed the entries only had to take the text into account and could come up with the wildest ideas—such as a solar eclipse at midnight. They had to adhere to certain creative principles, but these were logical within the text. If the sun could be eclipsed at dawn, noon, and dusk, why could it not

happen at midnight too? Once omen series became the tools of trade of divination, they directed diviners how to structure their investigations. For extispicy they set the order to be followed in examining the organs, and instructed what features to look for. When something appeared that no scholar had previously considered potential, it was considered meaningless.

The reports also give an idea of how diviners went about their observations. A single sign was not sufficient, and in the case of extispicy, for example, the *haruspex* systematically went through the sacrificial animal's entire body, not just once, but with a second reading for verification. The Old Babylonian extispicy prayers I mentioned before ask the gods for multiple signs in a sequence of external and internal features of the lamb. Likewise, "heavenly writing" was made up of a series of signs, each one to be read as in the sequence of cuneiform signs of a written text. And like a text, the divinatory reality could have multiple readings. Scholars reporting to their Assyrian masters now and then disputed interpretations others had suggested. There certainly was competition between them, and they were ready to discredit their colleagues as charlatans.⁶⁵ That the readings of different diviners could be divergent and include mistakes was sometimes explicitly acknowledged, and a source of apprehension when the divinatory investigation was of the highest importance. King Esarhaddon, worried about what led to his father's death on the battlefield, wrote:

I went and collected the *haruspices*, who guard the secret of god and king, the courtiers of my palace, divided them into three or four groups so that they could not approach or speak to one another, and investigated the sins of Sargon, my father, by extispicy, inquiring of Shamash and Adad.⁶⁶

He wanted to get a variety of opinions. Although a deliberate decision to obtain multiple readings was unusual, it must not have been uncommon in practice that various diviners commented on the same incident, especially when it happened in the sky. One such case is very well documented in the preserved record. On March 15, 669 BC, there was a delayed visibility of the full moon combined with the conjunction of Saturn and Mars with the moon in Virgo, an event chronicled in nine reports, sent to Nineveh by five Assyrians and four Babylonians. The scholars applied various rules and focused on different phenomena and their relative importance, but most of them followed roughly the same order in reporting their observations and applied the same principles of interpretation, such as equating celestial bodies with each other and

balancing out the meaning of multiple signs. Although they quoted different omens, the reports rarely contain apodoses that are incompatible. Also, all of the writers wanted to put the king's mind at rest.⁶⁷ Still, the king had to deal with multiple interpretations and, probably, numerous warnings of impending disaster. This may have been to his benefit, however, as he could choose what to accept and how to act, thereby turning the divinatory information into policy.⁶⁸

When Gods Wrote to Humans

There is no doubt that Babylonians and Assyrians took the omens very seriously and saw them as true messages from the gods.⁶⁹ They believed that the gods had created the universe by bringing order into chaos and that the patterns they had established, and especially divergences from them, were under divine control. The idea must have gone back to the origins of divination, and it was expressed in writing from the moment omen series appeared or soon thereafter. Because of the shifting importance of deities in the pantheon over time and the involvement of various cult centers, different gods were said to have laid the foundations for communicating divinatory signs. The celestial omen series *Enūma Anu Enlil*, best attested in the first millennium but already known in some form in the early second millennium, had from its beginnings a mythological introduction that laid out the context in which the gods conveyed omens: a trio of ancient gods, the sky god Anu and his sons Enlil and Enki, had ordered the universe in such a way that celestial signs made sense. Unlike the omens themselves, this introduction appeared both in Sumerian and Akkadian versions, with slight differences in their contents. In the first millennium the versions read:

When Anu, Enlil and Enki, the great gods,
 in their infallible wisdom,
 Had, in the plans for heaven and earth,
 laid down the crescent-shaped vessel of the Moon,
 Had established it as a sign for heaven and earth,
 That crescent-shaped vessel shed light in heaven,
 The stars came out, to be visible in heaven. (Sumerian)
 Otherwise:
 When Anu, Enlil and Ea, the great gods, in their wisdom,
 Had laid down the plans for heaven and earth,
 Had confided to the hands of the great gods to bring forth
 the day, to start the month for humankind to see,

They beheld the Sun in the portal of his rising,
The stars came out faithfully in heaven. (Akkadian)⁷⁰

The Sumerian version focused on the moon, the Akkadian on the sun, both divinities whose appearances the great gods had decreed.

But other ideas about the organization of the universe circulated, and the gods involved needed a role in the establishment of divinatory arts as well. The Babylonian creation myth, *Enūma eliš*, credited Marduk, Ea's son by his wife Damkina and the new king of the gods, with establishing the behavior of celestial bodies that were ominous. Probably all gods could communicate signs if they wanted to, although from the early second millennium on "Shamash, the lord of judgment," and "Adad, the lord of extispicy-rituals and divination,"⁷¹ were especially apt to do so. All areas of the universe were available to them. The signs of heaven paralleled those of earth in a system of similitudes that resembles the way in which the omen lists themselves were constructed. A late text from Uruk, purely speculative but rooted in the belief that discrete elements are comparable, correlates each part of the liver as read during extispicy to a god, a month, and a celestial body. For example: "The palace gate corresponds to the goddess Belet-ekalli (i.e., Lady of the palace), the month Abu, the constellation King-of-the Palace, the Bow-star with the King-star (Regulus)."⁷²

The gods used these signs to communicate their decisions to humans, in acts that very much resembled the way in which mortal rulers interacted with their subjects. As Giovanni Manetti writes, "Just as the king spread his power from the center to the edges of the state through a highly developed capillary administrative network which transmitted his written orders to his subjects, so the gods used writing to make known to humanity the fate which they had fixed for each individual. For the gods, however, the only writing tablet large enough for their expression was the universe itself."⁷³ The parallelism between omens and laws was made explicit in the choice of terms to refer to an omen decision, which was the same as that for a legal verdict, *purussû* in Akkadian. The gods rendered judgments in the form of oracles; they were divine judges.⁷⁴ Their signs did not trigger the future but communicated their intent for it. But the gods were not stubborn. As we saw before, exorcists could convince them to change their minds through prayers and rituals, the source of an enormous corpus of writings closely associated with omen series.⁷⁵ In essence, the gods could be bribed. Extispicy, the divinatory practice for king and commoner alike, involved the

slaughter of up to three lambs, each one of which de facto was a sacrifice to the gods,⁷⁶ and we know from the Flood story how desperate they were to get their food and drink from humans. When they thought that all of humankind had been exterminated “their lips were agonized with thirst, they were suffering pangs of hunger,” only to pounce “like flies” onto the offering made by the sole survivor of the flood.⁷⁷ It cannot be an accident that the reports on extispicies commissioned in the early second millennium all had propitious outcomes.

Writing signs in the universe was one thing, understanding them another. The omen series gave humans the key to do so, but who was credited with the composition of those guides to interpretation?⁷⁸ Divinatory texts were the site where gods and knowledgeable humans interacted, and several tales relate how the gods taught sages how to use these texts. This happened in the distant past, when privileged individuals were still able to enter the divine world. In a first-millennium story the gods of divination Shamash and Adad invited the king of Sippar, Enmeduranki, known from the *Sumerian King List* as an antediluvian ruler, to the divine assembly and showed him how to observe oil on water and read the liver. Enmeduranki in turn taught the knowledge to men from Nippur, Sippar, and Babylon, whose descendants alone were allowed to conduct the procedures in a tradition passed on from father to son. Another human sage, Adapa, who according to myth also crossed the boundaries between the human and divine realms to meet the sky god Anu, was declared the author of a mysterious text “The crescent of Anu and Enlil,” possibly a commentary on celestial divination. The god of wisdom Ea appeared as the author of some well-known series, including the celestial *Enūma Anu Enlil*, and, together with his son Asalluḫi, the medical texts *Sakikkû* and *Alamdimmû*.⁷⁹ The divine origin of omen series explains why they had the authority to guide all aspects of divinatory practices. But all Babylonian scholars working with omen lists must have been aware that they were not copying divine words alone. They knew of variants, and many of them probably created new entries or knew people who did so; and they explicitly acknowledged that some of their ancestors had reorganized series. As mentioned in the previous chapter, the scholar of the late second millennium Esagil-kīn-apli was honored for his editorial work on divination and other texts. His achievements were considered so great that he became a sage in his own right and was considered the descendant of a goddess.⁸⁰ Creative work on divinatory writings brought one closer to the gods.

Although the sign was divine and its interpretation divinely inspired, it needed a human audience to have meaning. What good was a message if there was no one to read it? The first item an haruspex inspected when examining a liver was a prominent groove in the left lobe, which in the early second millennium was identified with the term “the view,” *na-plastum* in Akkadian. Later on its first syllable, NA, stood as a logogram for another Akkadian word, “the presence,” referring to the god’s availability for consultation, but it still referred to “the view” as well then.⁸¹ It was a portal through which gods and humans communicated, in a dialogue in which both were active participants. The human gaze gave life to the divinatory sign. Just as astronomers see the shape of constellations in the myriad points of light in the night sky, diviners constructed portentous signs out of the innumerable features in their surroundings. They molded them in such a way that they could be analyzed according to the hermeneutic principles elaborated in the omen series. And these series were created at the intersection between divine and human worlds involving the few mortals who had stepped into the realm of the immortals and had returned. Their elaboration was a massive enterprise lasting close to 2000 years in which successive generations of scholars gave meaning to established sets of elements—points in the liver, planets and stars, and so on—in ever new configurations. They were not passive recipients but true creative scholars whose labor took place on the margin between reality and text. When they looked at the world they did so as if it was a text and with the elements of writing in mind. As did the accountants who, trained through the repetitive copying of lexical lists, observed the herds of sheep, looking for the categories those lists identified, the diviners scrutinized all surroundings for characteristics the divinatory series had designated as ominous.

Ironically, observation led to the only fundamental threat to the entire discipline of divination, the ability to predict. Celestial divination, which was most elaborated in writings of the first millennium, had the unique distinction of working with cyclical occurrences, and the Babylonians were rightly celebrated in antiquity for their understanding of those cycles. Certainly from the early first millennium on, they knew that certain celestial motions were periodic and were able to turn their knowledge of short-term events into the composition of tables for the long term. They produced sets of texts that relied on observations to calculate when heliacal risings and eclipses would occur and to determine the actual lengths of months (29 or 30 days) rather than the ideal 30 days used in *Enūma Anu Enlil*.⁸² The mathematical

astronomical texts primarily focused on the elements that were important in divination and were not intended to be as accurate as possible. They were intended to formulate legitimate solutions to the question as to how ominous events might be anticipated.⁸³ Did the ability to predict ominous phenomena accurately undermine the entire system? No. *All* omen texts contained a paradox: they formulated repeatable connections. Some would certainly reoccur—a lunar eclipse, for example—while others, like the birth of nonuplets, could as equally well happen repeatedly as once only. All were part of a system that asserted that one thing implied another, and thus they turned the anomalous into something systematic.⁸⁴

So the development of mathematical astronomy was not a paradigm shift, and there is no need to count on unpredictable phenomena such as the color of an eclipse or meteorology to account for the continued use of celestial divination even after important ominous events could be predicted accurately.⁸⁵ We see the calculation of an eclipse in the future as scientific and the idea of the birth of nonuplets as absurd, but we use our mental maps rather than Babylonian ones when we make this distinction. Historians in general used to be startled when studying past scholars whose writings were both scientific and fantastic according to modern criteria, but in recent years they have come to realize that these belong together. Today evaluations of the sixteenth-century Swiss physician Paracelsus, for example, no longer praise his innovative work on chemicals and deride his adherence to mythical explanations and the kabbalah. His entire oeuvre is seen as a whole with its own consistency.⁸⁶ We need to do the same for the Babylonian divinatory sciences: the entire corpus, with its remarkable accuracy in some areas and its seeming charlatanism in others, displays a coherent rationality.

Truth

Divination was a conversation between gods and diviners. The latter had to be suitable individuals to merit the gods' attention, and according to the Enmeduranki text mentioned above, required a proper ancestry and a blemish-free body:

When a diviner, an expert in oil, is of abiding descent, that is, the offshoot of Enmeduranki, king of Sippar, who sets up the pure holy bowl and holds the cedar, a benediction priest of the king, a long-haired priest of Shamash, a creature of Ninhursag, begotten

by a reverend of pure descent, he himself, being without defect in body and limbs, may approach the presence of Shamash and Adad where liver inspection and oracle take place. The diviner of impure descent, not without defect in body and limbs, with squinting eyes, chipped teeth, a cut-off finger, a ruptured(?) testicle, suffering from leprosy, . . . , a eunuch, who does not observe the rites of Shamash and Adad, may not approach the place of Ea, Shamash, Asalluhi, and Belet-šeri, who is the surveyor of heaven and the nether world and the beloved of her brothers, for an oracle by divination.⁸⁷

But the gods too had to adhere by certain rules; they needed to tell the truth. The place where diviners and gods met was called the place of truth, *qaqqar kitti*, and diviners regularly implored the gods to be honest. Old Babylonian prayers to the gods of the night plead: “In the omen I am taking, in the lamb I am blessing, put truth,” a sentiment still repeated in first-millennium oracle inquiries: “This lamb I treat with the right hand, with the right hand I bless, let there be truth in the right side.” The gods were asked to judge the human inquirer’s case in truth and justice, *ina kittim u mišarim lidinu dinam*;⁸⁸ the supplicant used the wording we will also encounter in Hammurabi’s laws. By sharing truth with the gods the diviners became as knowledgeable as them and transcended normal human boundaries. Hence they “knew all things that were, the things to come and the things past,” as Homer said of the diviner Kalchas (Iliad 1.70).

The gods spoke in riddles and their messages, however truthful, needed interpretation, and Babylonian divination faced the same challenges as any other system that believes the gods communicate through signs. Hermeneutics provided the interpretative tools, and in that sense again Babylonians thought has an uncanny overlap with contemporary ideas. While in modern times hermeneutics has grown from an understanding of texts to one of reality and the human place within it, in Babylonia the tools of reading texts and of reading signs of the universe were always the same. In the early second millennium scholars started to realize the ability to connect the two, and at that time omen series came into being. The hermeneutic practices used to establish the connections between protases and apodotes were the same as those used to understand the universe. Divinatory sciences thus provide the most elaborated insights in Babylonian epistemology.

PART IV



THE WORD OF THE LAW

CHAPTER 6

Of Ancient Codes

Above the doors that give access to the gallery surrounding the House Chamber in the U.S. Capitol are located 23 marble relief portraits of “historical figures noted for their work in establishing the principles that underlie American law.”¹ Eleven face to the right, eleven to the left, while the relief in the middle shows a full-faced image of the biblical lawgiver Moses. All of them look at an inscription above the speaker’s chair that quotes the mid-nineteenth-century representative Daniel Webster,

Let us develop the resources of our land, call forth its powers, build up its institutions, promote all its great interests, and see whether we also, in our day and generation, may not perform something worthy to be remembered.

This clearly calls on the House members to pass legislation that advances the well-being of people, in the tradition of a genealogy of lawgivers going back to the biblical past. The selection of predecessors, even if they are all men, is remarkably broad-minded. While mostly Europeans from ancient Greece to nineteenth-century France, with George Mason and Thomas Jefferson representing early U.S. history, the list contains some less conventional figures, including Maimonides, the Jewish philosopher from Spain, and Suleiman, the founder of the Ottoman Empire. On Moses’s right is Hammurabi, whose inclusion the official description of the artwork explains as follows: “(fl. c. 1792–1750 B.C.). King of Babylonia; author of the Code of Hammurabi, which is recognized in legal literature as one of the earliest surviving legal codes.” His presence in the list reflects the common Hegelian idea that ancient Mesopotamia was ancestor to the West and that we ought to study it as the birthplace of Euro-American civilization. As the text of

his laws is older than all others, his portrait should have been at the start of the genealogy, but it would have been hard in the Judeo-Christian tradition to have him to upstage Moses, whose laws came from the mouth of the biblical god—this explains his position in second place.

Hammurabi's inclusion is certainly justified, as indeed he authored—or more likely commissioned—one of the earliest surviving law codes in world history. We can no longer say that his was the earliest surviving code, but all the earlier works were also Babylonian. Hammurabi's code is part of a small corpus of ancient Near East writings about law that was founded on the principles we encountered in lexical and omen series—principles that doubtless would raise eyebrows if used in today's U.S. Congress. But the law codes of the ancient Near East show how aspects of Babylonian epistemology could be imitated by others even if they did not employ the Babylonian writing system that lay at its core. Before we analyze the format of these laws, let us look at the preserved texts and their historical context.²

A Brief History

Compared to the gigantic corpora of Babylonian lexical and omen materials, what modern scholars call law codes are very few in number. The exact format of the codes and therefore the parameters of the genre are not entirely clear, but if we take Hammurabi's text as the standard, we can only identify five other examples in Babylonia and culturally closely related Assyria. Edicts, decrees, protocols, and other legal pronouncements by political powers existed, but the group of law codes is very small. One dates to the late third millennium, three to the early second, and one each to the late second and first millennia. All except Hammurabi's are quite poorly preserved, but the corpus is mostly so coherent that we have a good idea about their original format.

The earliest Babylonian king to commission a text that included a sequence of legal rules or laws was Ur-Namma, the founder of the Ur III state around 2100. The author used the principal language of royal communication at that time, Sumerian. As do several other codes, this one includes a prologue, commemorating military victories over foreigners and good deeds to local subjects, in this case the standardization of measures, regulation of traffic, and protection of the weaker in society. The king declared that he established justice in the land, which meant that "at that time" certain crimes were punished with the sentences outlined in the text. Thus the list started with the statement that

“If a man commits murder, then they shall kill that man,” using a phraseology that characterizes ancient Near Eastern law codes (we will look at the wording of the laws in detail later). There is an atypical passage in one paragraph in which the author explicitly states that when Ur-Namma became king he revised the practice regarding slave sales. No other code connects rules to the king who promulgated the laws within the list of paragraphs; elsewhere such information is the subject of the prologue. The preserved parts of the Laws of Ur-Namma include eighty-six paragraphs, and the text ends with an epilogue threatening whoever would efface the inscription with divine retribution, which indicates that the text was originally displayed on a monument. We know the work from at least six manuscripts, most of which are copies made in schools at Nippur, Ur, and Sippar 400 or so years after Ur-Namma lived. Only one exemplar derives from the period of the dynasty he founded. The text, fully written in Sumerian, was still being reproduced when the Akkadian-language Code of Hammurabi existed. Most manuscripts we have, then, were not legal material, but documents of scribal practice.³

Also mainly known from copies on school tablets from Nippur and possibly Kish and Sippar is the other code in the Sumerian language, a commission of Lipit-Ishtar, king of Isin around 1930. Sixteen fragmentary tablets make up at least two manuscripts with the full text. Moreover, two small stone fragments found at Nippur contain passages from the prologue and may have been part of Lipit-Ishtar’s original monument. He too claimed in the prologue that he established justice, which meant that “at that time” certain legal customs prevailed. The code dictates penalties for crimes or criminal negligence, sets fees, determines the status of the offspring of free men and slave women, and so on. Thirty-eight paragraphs are preserved. In the epilogue Lipit-Ishtar declares that he inscribed a stele to commemorate his bringing justice to the land. At the end he blesses those who honor his inscription and curses those who destroy it.

Lexical lists, such as the series *ana ittišu* mentioned before,⁴ show that the language in which law codes were written had no effect on their format and formulation. To the Babylonians, Sumerian and Akkadian legal phraseologies were fully parallel, and it is no surprise then that in English translation the earliest law code in Akkadian, the Laws of Eshnunna, sounds exactly like the Sumerian examples I just discussed. The Akkadian document came from the area east of modern Baghdad in the Diyala River valley, from the kingdom of Eshnunna,

which in the early second millennium was a powerful state and fully integrated in the network of Babylonian states until Hammurabi defeated it in 1766. The Laws of Eshnunna, composed around 1775, are known from three manuscripts, two from the city Shaduppum, one from the smaller site of Meturan. The latter is a student exercise; the first two are large tablets that possibly served as official records. None of the three manuscripts contains a prologue; the only one whose beginning is preserved starts with a date that places it in the reign of King Dadusha. The same manuscript also has a blank space at the end that could have been intended for a colophon, but no prologue or epilogue frame the list of laws. The 60 paragraphs are well preserved. They show concerns over economic issues such as prices and fees, and also “deal with numerous situations, including renters’ liability, agricultural matters, theft, pledges, deposits and loans, debt servitude, marital rights and property and sexual offenses, fosterage and care for children of dependent classes, bodily injuries, fugitive slaves, goring oxen and vicious dogs, and collapsing walls.”⁵

Some two decades after Dadusha of Eshnunna issued his laws, the most famous of all Babylonian codes was created, Hammurabi’s of Babylon. The prologue’s long list of cities and their patron deities whom he favored—including the gods Tishpak and Ninazu of Eshnunna—allows us to determine that the composition could not have taken place before 1755, by which point Hammurabi had integrated all of them into his kingdom. The prologue reads like a proclamation of peace after a decade of incessant warfare. Hammurabi calls himself, for example, “the hero who shows goodwill to the city of Larsa, who renovates the Ebabbar, temple of the god Shamash, his ally,” a clear reference to his conquest of that city in 1763 and his new role as chief caretaker of its patron Shamash and his temple.

More than 50 manuscripts of Hammurabi’s code are known, all but the primary source—the stele now in the Louvre Museum—providing only segments of the text.⁶ Its wide circulation both in Hammurabi’s time and later on seems to have resulted from various factors. Hammurabi himself commissioned multiple copies engraved in stone. The famous Louvre stele, a basalt monolith 2.25 meters high with a carefully carved inscription, was just one of several he erected, probably in various cities of his newly formed state. Fragments of at least two other ones exist. These were monuments of public display and as such drew the attention of scribes, who copied out passages on clay tablets soon after they were set up (several such manuscripts are preserved). In this

sense the Code of Hammurabi is no different from those of Ur-Namma and Lipit-Ishtar, or for that matter other early Babylonian inscriptions on monuments, which remained on display and served as models for scribes for centuries. One tablet shows that the inscription was the subject of scholarly analysis in the Old Babylonian period: it contains a Sumerian translation, with some Akkadian glosses, of Hammurabi's epilogue, possibly using the Louvre stele as its source.⁷

The subsequent history of Hammurabi's text shows how it acquired a very special status, although questions surround its transmission. We know that the Louvre stele stood somewhere in Babylonia into the twelfth century.⁸ In 1155 the Elamite king Shutruk-Nahhunte raided the country and took home to his capital Susa a load of monuments including Hammurabi's stele. The inscription was thus no longer accessible to Babylonians and Assyrians, yet extracts of it appear on tablets from Assur and Nineveh for the next 500 years. Since the Louvre stele was just one of several monuments inscribed with the laws of Hammurabi's days, it is possible that another inscription served as the inspiration of these copies,⁹ or—in my opinion more likely—that the text of the code transmitted on clay tablets had become part of the collection of ancient texts that scribes studied. A catalogue from Assurbanipal's library lists a manuscript of the "judgments of Hammurabi," while a very fragmentary later scholarly commentary, possibly from Babylon, contains extracts of the laws with esoteric annotations.¹⁰

The Louvre stele survived Susa's turbulent history, including a violent sack by Assurbanipal in 647, and when the Persians incorporated Babylonia into their empire in 539 Babylonians could once again see it. A copy of it was part of the Persian-period library at Sippar. The tablet cites the entire prologue of the Louvre stele and states explicitly that the scribe saw the monument at Susa:

First tablet of the composition called "When the august god Anu," not complete. Written in accordance with the wording of the original old stele that Hammurabi, king of Babylon, set up in Susa. A clay tablet of Marduk-šumu-ušur, son of Mušallim of the city Agade.¹¹

Hammurabi's code constituted the longest consecutive text of early Babylonian history. It had three clearly distinct parts: a prologue, a long list of law paragraphs, and an epilogue. The format was thus the same as Ur-Namma's and Lipit-Ishtar's; Hammurabi's was just more elaborate. As in the other cases, the prologue depicts Hammurabi as a

king who cares for the well-being of his people, and finishes with the statement that “at that time” the laws enumerated in the paragraphs were in use. Originally there were between 275 and 300 law paragraphs (Shutruk-Nahhunte erased an unknown number of them), primarily phrased in the style that Ur-Namma had already used, the conditional phrase “If . . . , then . . .” A wide range of legal domains is addressed in them, which modern scholars have summed up in various ways. Two main areas of law were of concern: state and religious matters (dealt with in paragraphs 1 to 41) and individuals (the remainder of the text).¹² The long epilogue stresses what Hammurabi’s declaration of these practices really meant. He was a King of Justice whose actions should reassure any “wronged man” that he could find redress for unfair treatment.¹³ The epilogue also sets up Hammurabi as the model of a just ruler to be imitated by later kings. A series of curses threatening those who damage the monument or ignore its contents ends the inscription. Although Hammurabi’s code was not unique in its genre, it certainly was the most impressive example by far, and not only because of its good state of preservation today. The code represents the culmination of developments that had started centuries earlier. It is the high point of a tradition in which kings asserted that they protected their people from legal abuse, a tradition that started with Ur-Namma and ended with Hammurabi, some 300 years later.

Scribes in Babylonia and in Assyria continued to copy out passages of Hammurabi’s code for many centuries, but the genre of law codes did not flourish in these countries. It is highly unlikely that this was because people regarded Hammurabi’s text as normative—it never functioned as a reference work for legal decisions, as I will discuss later on. The ideology surrounding the king seems to have changed, and the idea that he guaranteed justice to his people was no longer a major point of public declaration. There exist only two later law codes, one from Babylonia, the other from Assyria.

More than one thousand years after Hammurabi, a new law code appeared in Babylonia. The text of these so-called Neo-Babylonian Laws is preserved in a single manuscript, probably a student exercise, from the mid-first millennium BC. It is so damaged at the start and the end that we do not know whether it contained a prologue or epilogue. The name of the king who commissioned the laws is also lost; all we have is a sequence of fifteen legal statements affecting free men and women. “The preserved laws cover topics including agriculture and irrigation, purchase by proxy, slave sales, unauthorized performance of

a magic or ritual act, marriage, marital property, and inheritance.”¹⁴ The differences between early Babylonian codes and the Neo-Babylonian Laws are great. Notably, the phraseology has changed: all Neo-Babylonian Laws are introduced by the relative clause (“Whoever . . .”), a wording that is exceptional in earlier Babylonian examples. The Neo-Babylonian Laws may be an antiquarian revival of an earlier ideology of the king as the guardian of justice. A literary text of the same era supports that idea. Its author, too, is unknown, but Nebuchadnezzar II is a likely candidate.¹⁵ In the text the king boasts of his attention to justice, recalling phraseology of Hammurabi’s code. Perhaps the Neo-Babylonian Laws were a demonstration of his aspirations in action.

In Assyria, too, where Hammurabi’s text was known through scholarly copies of extracts, only one code existed. Its composition is different from all others in that there are twelve tablets, each inscribed with a distinct set of laws; it is unclear whether they ever formed a single corpus that was regarded a coherent whole.¹⁶ The preserved tablets almost all are eleventh-century copies of older originals, and all but one are unique manuscripts excavated at Assur. The sole exception is of what we call the Middle Assyrian Laws A, for which perhaps a Neo-Assyrian manuscript with slight variations in the text exists.¹⁷ None of the Middle Assyrian Law tablets contain the name of a king or any information about the purpose of the collection. They just list legal precepts. A total of 124 paragraphs are wholly or partly preserved, but considering that most of the tablets are fragmentary, originally many more certainly existed. The paragraphs are often very long when compared to those of other codes. Some of the tablets seem to have a specific focus, especially the Middle Assyrian Laws A, which deal almost exclusively with women as victims or legal agents. In the group in its entirety a wide variety of private concerns are addressed. While the formulation of the paragraphs certainly resembles that of earlier Babylonian law codes, the overall purpose seems different. We can thus say with certainty that the ideals of law-giving, which flourished in early Babylonian history, died out after Hammurabi. This makes the survival of the format of early Babylonian legal formulation outside Babylonia and Assyria even more intriguing; I will turn to this topic next.

Babylonian Laws Abroad

Anyone somewhat familiar with ancient law will have recognized that the phraseology the Babylonians used to express their precepts was not

limited to that culture. The “If . . . , then . . .” structure, regarded by many historians as the most elemental of legal formulations, was used widely, and the list format, so characteristic of all Babylonian scientific expression, seems especially suited for laws. The wording of the laws by itself cannot tell us whether or not another legal system depended on the Babylonian for its inspiration. Naturally the question is part of more general debates about cultural diffusion, and the search for Babylonian elements in other law collections needs to take information about broader cultural interactions into account. One observation should be stressed: written systematic formulations of laws were very rare in the wider ancient Near East. Although many scholars assume they existed, none are preserved or explicitly referred to in highly literate Egypt until around 500 BC, when the Persian ruler Darius is said to have commissioned a compilation of legal practices in writing. Some have argued that the concept of *ma’at*, which includes justice among its multiple meanings, was incarnate in the person of the king in Egypt, and that writing down laws there would have been superfluous.¹⁸ We do not find anything resembling law codes in Iran or Syria even at the times when Babylonian literate culture was widely accepted there. Only two ancient law collections outside Babylonia and Assyria are known from the ancient Near Eastern world, and the links with Babylonian traditions seem clear in both cases: Hittite laws of the second millennium and biblical laws of the first.

The Hittites of Anatolia, close to Babylonia in their literate culture, left behind two series of 100 laws each, both known to us from around twenty manuscripts, and there are indications that a third series existed as well. Each preserved series was written out on one or two tablets. Dating Hittite manuscripts is notoriously difficult, but scholars agree that some belong to the first half of the second millennium, while the latest are from shortly before 1200. All manuscripts are thought to be copies of some lost original, and dating the composition of the laws is even more difficult. They incorporate several rewritings, as we will see later, and to many scholars the latest form was established by 1500. The series had colophons that reveal their ancient titles, “If a man” and “If a vine.” Although written in the Indo-European Hittite language, their format parallels the Babylonian in every respect: the laws by far most often use the wording “If . . . , then . . . ,” and their arrangement is structured like the Babylonian laws.¹⁹

The translatability of the format is also clear from the law collections in the most elaborate and influential ancient Near Eastern document,

the Hebrew Bible. Those in the Pentateuch have been foundational in the Judeo-Christian traditions of the western world and beyond, with a far-reaching impact on later history. Moses's position at the head of the legal teleology displayed in the U.S. Capitol will surprise few. Tradition says that he transcribed the commands of the biblical god to the people of Israel in those first five books of the Bible. The laws are thus fundamentally different from all others we have discussed, which were unequivocally connected to human creativity: kings issued laws, not gods. Only in the Bible was human agency reduced to transmitting the divine commands. Modern scholarship debates at length when the biblical text was composed, and this problem is unlikely ever to be solved conclusively. The format and contents of many laws very well fits the Babylonian tradition, however, and the question of when that inspiration would have taken place is not really important to me here.

Legal prescripts appear in different parts of the Hebrew Bible and have various formats.²⁰ Most famous are the Ten Commandments (*Exodus* 20:2–17 and *Deuteronomy* 5:6–21), with their absolute imperatives—“Thou shall not kill”—a turn of phrase that does not appear in other Near Eastern codes. They state principles without indicating a penalty for those who disobey; and, despite what some may claim, they are too limited in their coverage to function as guides for all aspects of life. Perhaps not surprising, then, soon after listing the Ten Commandments the book of Exodus states a more elaborate series of laws, often called the Covenant Code (*Exodus* 21:1–22:16). It is a complex piece of writing. A leading legal historian phrased some of the challenges it presents to the reader as follows: “Contradictions appear to abound between the various laws and even within them, while abrupt changes of form and syntax seem to break the thread of discourse. Even distinctions made by the laws themselves are hard to appreciate: why should the penalty for theft of an animal vary according to whether the thief has it alive in his possession or has slaughtered or sold it?”²¹

Most scholars think that the Covenant Code existed as an independent composition before it was inserted into the biblical text as we know it. A succinct divine command to Moses introduces the series of laws—“These are the ordinances that you shall set before them”—and there is no clear indication when the series ends, as the laws blend into religious norms. Babylonian inspiration is widely accepted. Not only do the formulations of the laws parallel those of Babylonia—they primarily use the “If . . . , then . . .” wording—but the legal principles they articulate also show similarities. Some laws are so close to Babylonian

ones that one can argue for direct influence. Most elucidative in that respect are laws concerning the “goring ox.” Although not entirely fanciful, it must have been a rare occasion that an ox on the loose butted another animal or a person, causing death. Yet two Babylonian codes and the Covenant Code treat the subject at length.²² They envision two options: an ox either kills another ox (*Eshnunna* § 53; *Exodus* 21:35–36) or a person (*Eshnunna* §§ 54–55; *Hammurabi* §§ 250–52; *Exodus* 21:28–31). All three codes make further distinctions: was the human victim a free person or a slave? Did the owner know that the ox was prone to goring or not? If he did, he was guilty of criminal negligence and had to pay a fine; if he did not, the animal was responsible. For one law, the wording of the Covenant Code is almost exactly like that of *Eshnunna*’s:

If an ox gored another ox and caused its death, the owners of the oxen shall divide between them the sale value of the living ox and the carcass of the dead one. (*Eshnunna* § 53)

If an ox belonging to one man gores to death the ox of his fellow, they shall divide the proceeds, and they shall divide the dead animal as well. (*Exodus* 21:35)

The relationship between the Covenant Code and earlier Babylonian laws is a vexing question that has stirred much debate. Many scholars think that an oral tradition aware of the text of early Babylonian codes inspired the biblical authors sometime in the late second or first millennium. Some imagine now-lost intermediaries in languages such as Aramaic and Phoenician, while still others argue that the biblical authors saw the text of Hammurabi’s code and used it as their model.²³ That the Hebrew text relied on Babylonian inspiration seems certain; its authors must have known about it in the same way that they were familiar with other elements of Babylonian literate culture. I would doubt that they saw Hammurabi’s stele, but they seem to have had access to scholarly extracts of its text, which we know were copied into the fourth century BC. The continuation of the Babylonian legal tradition in the Hebrew Bible was important for the latter because it triggered the survival of Babylonian ideas into much later history.

Before we turn to that subject, however, let us look at the Classical Greek and Roman worlds, where early codes exhibit Near Eastern practices as well. The most famous examples are the Great Laws of Gortyn, the most extensive item of a corpus of legal inscriptions from seventh-

to fourth-century Crete, and the Twelve Tables of Rome of the mid-fifth century. These texts date to a time when passages from Hammurabi's code were still copied out in the Persian Empire, although I cannot imagine that the Greek and Roman authors read a tablet with Hammurabi's laws on it. Yet, not only does the phraseology of the individual clauses parallel what we have seen in the Near East, but sometimes the content of Greek and Roman laws can only be understood when we consider it in the light of those earlier works. The Twelve Tables include, for example, a curt statement that *iniuria* (literally, "outrage") leads to a financial penalty of 25 asses (small coins). This strange precept makes sense when the crime is seen as an insulting slap in the face, an occasion discussed in Babylonian laws in the context of physical injuries.²⁴ The manner in which these two codes were displayed is also very Babylonian. Gortyn's Laws were carved in monumental script on a wall of the agora, while Rome's Twelve Tables—now lost—originally were posted on the Forum, where anyone could consult them. The relationship between the Classical codes and Near Eastern ones is much contested. The parallels I have just mentioned lead some to argue that the Greek and Roman law collections were peripheral products of Babylonian legal science. Other scholars object to that conclusion, stressing that Greek and Roman laws were accessible to all and quoted in actual legal practice, and that they developed in a political sphere that was very different from Near Eastern monarchies.²⁵ The issue is part of the thorny and contentious question of Graeco-Roman debts to the Near East, a difficult topic I will avoid.

Discussions of Greek law after the Archaic period tend to veer away from actual codes, which are poorly preserved, and turn to the novel sources of legal oratory and philosophical writings about law. The latter approached the subject from a very different angle than actual codes did. Plato, for example, started from the idea of virtue, ranking human actions according to principles actual codes could not take into account.²⁶ He and Aristotle sought to establish legal principles in order to create just societies. At the same time, the evidence of Greek orations shows law in practice, and we tend to admire their refined techniques of rhetorical persuasion. However, when laws are quoted in these arguments—for example, in *Apollodoros against Neaira*²⁷—they still use the old format of "If . . . , then" But already Aristotle saw them as non-artistic elements in court speeches.²⁸

In Roman law too, the massive output of jurists, legislators, and others discusses law in ways very different from the Twelve Tables format,

and in the opinion of many modern legal historians this spelled the end of the Babylonian or Near Eastern tradition, which—in contrast to the massive subsequent impact of Classical systems—had lost all relevance.²⁹ But this seems a biased assessment, as the formulation of laws as a list of cases flourished again in medieval Europe. Germanic and Anglo-Saxon law codes read like those of Babylonia and the Hebrew Bible. There are many examples of such codes, and they use as a distinctive legal style either the “If . . . , then . . .” format or the relative clause “Whoever . . . ,” both common in the ancient Near East.³⁰ The sequences of cases explore areas of law through variation. For example, the Laws of the Salian Franks, from around 500 AD, include this series of stolen animals: nursing calf—yearling calf—two-year-old animal—cow with calf—cow without calf—cow broken to the yoke—ox—bull that rules the herd and has never been yoked—two-year-old bull—bull servicing cows of three villages—royal bull—twelve head of cattle and no more remain—if more than twelve remain—more than twelve up to twenty-five remain.³¹ The authors certainly could not read Babylonian cuneiform, but it seems reasonable to say that the format reached them through the Bible, a text they regularly acknowledged. The idea of a genealogy of lawgivers such as is illustrated in the U.S. House Chamber already existed, for example in the eighth-century AD Bavarian Laws whose preface places Moses at the head of a sequence including the Greeks Lycurgus and Solon.³² The principles behind these laws may have been Roman—all but those from the Anglo-Saxons were written in Latin—but their form could be considered Near Eastern. My intent here is not to argue a Babylonian ancestry for medieval European law and beyond, but to show that the commonly expressed teleology of legal formulation with the Babylonian form as deficient, primitive, and the like, and the Classical as intellectually superior and therefore more successful in later history, is false. When we look at the structure of the Babylonian codes and their purposes in the next chapter, this will become even clearer.

The history of the genre of law codes in ancient Mesopotamia recounted in this chapter is thus different from those of lexical and divinatory texts discussed before. On the one hand, within the Babylonian-Assyrian world law codes were few in number and from a short period of time. On the other hand, on its own and through the biblical intermediary the genre had a long-lasting impact on later formulations of the law. The composition of law codes flourished in Babylonia in the

late third and early second millennia, when four kings commissioned them: Ur-Namma and Lipit-Eshtar in the Sumerian language, Dadusha and Hammurabi in Akkadian. The much later Neo-Babylonian Laws composed more than a thousand years after Hammurabi stand on their own as a strange antiquarian revival of the concept. The Middle Assyrian Laws, written in the period in between, seem to have had a different purpose of governing palace life, although they used the same phraseology as earlier Babylonian texts. When the idea of the code originated in the twenty-first century it was part of the official literature that praised the king's benevolence. All four preserved codes may have been originally carved on monuments, but they became part of the corpus of esteemed texts that were copied out on clay tablets and that were studied by later generations. However, after Hammurabi, kings no longer commissioned laws, for reasons that are not obvious. At the same time the omen list was formulated as a genre of writing, using the same phraseology as the codes. Does this indicate a connection between legal and omen texts, or was the similarity accidental? It is possible that the idea of justice being guaranteed by the king gave way to one in which the gods took over this role. Omens were explicitly called legal verdicts of the gods.³³ The decline of the law code may thus have been part of the end of the king's divine status, which I argued could have inspired the divinatory series. This is pure conjecture, I admit.

Although in Babylonia the law code essentially disappeared except in manuscripts that copied parts of Hammurabi's text and perhaps other codes, in other areas of the Near East the genre survived. The writers of the Hittite laws, possibly created at first when Babylonian laws were still composed, took over the genre and its form of reasoning, translating it into the Hittite language. So did the first-millennium authors of the Hebrew Covenant Code, who seem to have known of Babylonian codes through scholarly copies made of them. Other examples may have been created elsewhere in the Near East and influenced Archaic Greek and early Roman codes. The format of reasoning certainly survived in those. Finally, the biblical laws inspired medieval European codes in their formulation. In this respect the afterlife of Babylonian codes was much longer than that of the lexical and divinatory genres. But the Babylonian codes display a system of reasoning that is the same as what we find in these other two types of writing. The next chapter will explore this system further and demonstrate how it connects to the idea of truth.

CHAPTER 7

The Philosopher-King

In the previous chapter I spoke of a history of the legal genre in which the authors of law codes were aware that they participated in a tradition and knew of earlier examples. There is little doubt that especially those of the late third and early second millennia based themselves on existing codes and reused and elaborated them, while later authors—not only in Babylonia and Assyria but also in other Near Eastern areas—knowingly imitated the format, which was probably familiar to them through scholarly copies of extracts. The overall organization of three of the four earliest codes, those of Ur-Namma, Lipit-Ishtar, and Hammurabi, is so similar, with prologues and epilogues framing the lists of laws, that it is hard to imagine this was not considered to be generic. It is possible that the surviving manuscripts of the other law collection, the Laws of Eshnunna, were copied from a monument with a similar structure. The Middle Assyrian and Neo-Babylonian laws seem to have had different aims than the earlier Babylonian codes, but they retained their approach toward legal formulation.

The choice of cases to be addressed in the laws similarly shows a repetition of earlier codes. Events that are unlikely to have occurred regularly in real life, such as the killing of men and animals by an ox running amok, are included in several codes.¹ Some laws replicate earlier ones almost verbatim. Hammurabi's § 160 phrases the case where the father of the bride-to-be breaks the engagement in the same way as the Code of Lipit-Ishtar § 29, translating the Sumerian into Akkadian. Later versions regularly expand on earlier ones, and certainly the size of the law collections increased over time: Hammurabi's code is much longer than all previous ones. But a process of elaboration is also visible in individual paragraphs. Paragraph 136 of the Code of Hammurabi, for example, rewrites § 30 of the earlier Code of Eshnunna: a man who

renounces his city and runs away cannot reclaim his remarried wife if he returns to her later on. Hammurabi increased the length of the text by two-thirds, something scholars have criticized as reducing its literary appeal and clarity.² The Middle Assyrian Laws, with their drawn-out paragraphs, seem to represent the culmination of the process of elaborating the contents of a law. We see thus parallels with other genres of writing already discussed. As was true for literature and scholarship such as lexicography, authors adhered to an existing tradition but had the liberty to introduce changes, most often expanding the texts. But while in other genres the structure of the texts remained in use for a long period of time and in multiple manuscripts that could alter details, in the codes the entire text was reworked under each king who commissioned them. The overall character of the codes and the manner of formulation remained the same, but the authors felt free to change the order and selection of paragraphs. We will focus on the elements that remained standard, however.

A Structural Analysis

At the core of all the codes is a list. What we call paragraphs are statements phrased in a limited number of formats and strung together just like the entries of the lexical and omen lists. Thus we can also subject the codes to an analysis that looks at each entry as a syntagm and at the sequence of entries as a paradigm. Comparing laws to lists of words may seem a ludicrous mixing of genres with entirely distinct purposes, but the Babylonians had no qualms about doing so. At least one lexical series incorporates legal paragraphs, and there are other manuscripts that straddle the genres—some modern compilers of ancient Mesopotamian legal material include them, others do not. I have mentioned the lexical series *ana ittišu* before. Its seven tablets analyze the terminology of legal documents, listing potential variants, such as verbs in their singular and plural forms. The final tablet of the series includes statements where someone denies a relative's legal status, for example, "If a son says to his father, you are not my father, then . . ." The sequence plays around with the pairs and considers six combinations: son–father, son–mother, father–son, mother–son, wife–husband, and husband–wife. It varies the penalty clauses as well. When a son renounces his father, his hair is shaved like a slave's and he is sold; when he renounces his mother, half his hair is shaved off, and he is paraded through the city and forced to leave his house. This again is a typical

example of reasoning within the text: the penalty for disavowing a mother is half of that for disavowing a father, and only thus half the hair is shaved off.³ *Ana ittišu* was composed in Nippur in the Old Babylonian period, but is best known to us from Assyrian manuscripts of the late second and early first millennia as a bilingual text that provides the Akkadian equivalents of Sumerian phrases. From early-second-millennium Babylonia there are a number of similar lists, all monolingual Sumerian.⁴ A four-sided prism with three columns on each side—the physical shape of the manuscript recalls that of other lexical material—contains paradigms comparable to those of *ana ittišu*. They include verbal forms (he left, he left him, etc.) and what read like legal paragraphs:

If he steals a boat, he shall twice give (its value) as replacement.

If he steals a pig, he shall twice give (its value) as replacement.

An Old Babylonian tablet containing a student's exercise reformulates the *ana ittišu* sequence just mentioned by reducing it to two possibilities, depending on who terminates the relationship: "If a son says to his father and mother, you are not my father or you are not my mother, he shall forfeit house, field, orchard, slaves and possessions, and they shall sell him for his full value in silver. If his father and his mother say to him, you are not our son, they shall forfeit the estate." Another set of school exercises, known from six copies, lists nine laws regarding injuries to oxen. These were all texts that fit both in the lexical and the legal traditions, and they suggest that we can look at the legal texts with a lexical structure in mind.

The Syntagm

How do legislators phrase their directives? Although modern societies have very distinct civil-law and common-law systems, all are familiar with the apodictic command form, "shall/shall not." The first article of the U.S. Constitution starts, "All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives," while the Napoleonic Code contains statements like "The registers shall be closed and bound up by the officer of the civil court, at the end of every year." Anyone aware of the Judeo-Christian tradition knows of the Ten Commandments and their "Thou shall not kill." This clear-cut and familiar format did not appear in the Babylonian codes, whose phraseology shows a less absolute stance and more of an argumentation that takes various nuances into

account and that outlines the consequences of actions. Three manners of expression are attested: conditional and relative phrases, and expressions of equivalence.⁵

In Babylonian codes the legal paragraph usually contains two elements: a dependent clause, either conditional or relative, that sets up the case using a main verb in the past tense (in Akkadian, mostly the preterite) but often translated in the present,⁶ followed by a main clause that provides the legal answer. The force with which the decisions are communicated in the main clause is not entirely obvious, and modern translators express an interpretation through their choice of words. My translations here use the command form “shall,” but the Akkadian employs a future imperfect tense that can also be rendered as the less assertive “will.” French translators often employ the *futur simple*, “cet adopté retournera à sa maison paternelle,”⁷ where the English uses “he shall return.” The meanings conveyed to modern readers are thus quite different.

The conditional phrase is by far the most common way to start a paragraph, and anyone even slightly familiar with Hammurabi’s code recognizes the phraseology: “If . . . , then . . .” The preserved parts of Lipit-Ishtar’s code use the format exclusively; in all others, except for the Neo-Babylonian Laws where it is not used at all, the construction predominates. Scholarly discussions always employ the terms protasis (“if”) and apodosis (“then”) to describe the elements of the paragraphs. While these are now accepted in linguistics to describe the parts of conditional sentences, their roots lay in the study of Graeco-Roman divination. And indeed, as we saw, the same sequence is found universally in Babylonian omen series.

Both the protasis and the apodosis can be very brief and simple, as the first law of Ur-Namma shows: “If a man commits murder, then they shall kill that man.” There were different ways to make either of these elements more complex. Many paragraphs envision only one specific action in the protasis, such as:

If an elite man blinds the eye of another elite man, . . .
If he breaks the bone of another elite man, . . . (*Hammurabi* §§
196–97)

Students of the ancient Near East and the Hebrew Bible habitually use the adjective “casuistic” to describe this type of legal formulation, but historians of later systems that use the same format, such as the Germanic codes, shy away from the term because of its negative connota-

tions. While a neutral reading, that is, a focus on the individual case, is legitimate, the link to casuistry and its specious reasoning understandably causes concern when discussing a legal system, and the survival of the designation “casuistic” is perhaps unfortunate. The case-by-case format is not always used in Babylonian law, however. Some paragraphs, albeit few, consider multiple options, for example:

If he (an elite man) blinds the eye of a commoner or breaks the bone of a commoner, . . .

If he blinds the eye of a slave or breaks the bone of a slave,
 . . . (*Hammurabi* §§ 198–99).

Such phrases may show attempts toward a certain economy of space, sparing the scribe the effort to write out repetitive sentences in full. They do not indicate a higher level of abstraction, however, as they fully parallel the usual case-by-case pattern visible elsewhere in consecutive paragraphs.

More often protases become complex because they intend to be more specific by introducing additional conditions. There seems to be an evolution over time, with the description of the cases becoming more elaborate, and the Middle Assyrian Laws in particular are much longer than earlier ones, as this protasis shows:

If the wife of a man should walk in a public place and should a man seize her and say to her, “I want to fornicate with you!”—she shall not agree and shall protect herself; should he seize her by force and fornicate with her—whether they discover him on top of the woman or witnesses later prove that he fornicated with the woman . . . (*Middle Assyrian Laws A* § 12)

This development parallels what we observe in the layout of successive paragraphs, to be discussed next: the cases they envision become more nuanced.

The apodoses are usually very brief and state a single action to be taken, but they can be more complex, especially when issues of property are involved. For example, “She shall give her field and her orchard to any tenant farmer she pleases, and her tenant farmer shall support her. As long as she lives, she shall enjoy the use of the field, orchard, and anything else her father gave her, but she shall not sell it and she shall not satisfy another person’s obligations with it; her inheritance belongs only to her brothers” (*Hammurabi* § 178). In some cases the verdict is modified when an additional factor arises:

If the wife of a man is found with another man, they shall bind them and throw them into the water. Should the husband save his wife, the king shall save his subject as well. (*Hammurabi* § 129)

Every case has a single solution only. The only code that allows for changing interpretations is the Hittite one, which lists a number of occasions in which laws were revised. Paragraph 92, for example, reads: “If someone steals 2 or 3 bee hives, formerly (the offender) would have been exposed to bee-sting. Now he shall pay 6 shekels of silver.”⁸ The Laws of Ur-Namma once compare earlier practices to current ones: while under the previous regime—“in the time of the Guti”—a slave could be sold after the master or his heirs swore an oath that he was legally owned, when Ur-Namma became king he added the requirement that a government official confirmed title.⁹ The lack of options in interpreting a case suits the format of the laws well: the apodosis is a logical conclusion of the protasis, and each case has its specific outcome.

The relative construction, “Whoever . . . ,” is much rarer, and is totally absent in the codes of Ur-Namma, Lipit-Ishtar, and Hammurabi. It is used in all Neo-Babylonian Laws, however. As with the conditional, both parts of the clause can range in extent from the single statement to a more complex multifaceted wording, and paragraphs in the Neo-Babylonian Laws tend to be much longer than in earlier Babylonian codes. The contents of the laws had no effect on the format chosen. The subject of the dowry of a childless woman, for example, is addressed in both the conditional and the relative formats:

If a man marries a wife but she does not provide him with children and that woman goes to her fate . . . —her dowry belongs only to her father’s house. (*Hammurabi* § 163)

A man who gives a dowry to his daughter, and she has no son or daughter, and fate carries her away—her dowry shall revert to her father’s house. (*Neo-Babylonian Laws* § 10)

A third and rarely used option was the most assertive and seemingly reserved for the purpose of setting prices and fees: “300 liters barley—one shekel of silver” (*Eshnunna* § 1). It was clearly considered a simple alternative to the conditional phrase, as the latter could also express prices. For example, while the Laws of Eshnunna state that “The hire of a boat with a 300-liter capacity is 2 liters (barley)” (*Eshnunna* § 4), the Laws of Hammurabi turn this into a conditional phrase, “If a man rents a boat with a rudder he shall give 2.5 grains of silver as its hire per day”

(*Hammurabi* § 276). The Laws of Ur-Namma combined the two articulations in the same paragraph: “If someone nurses a man’s child, her barley shall be 1800 liters, her wool 30 pounds, and her oil 30 liters, for three years. It is part of the midwife’s functions. The yearly fee of a hired wet-nurse is 1 shekel silver.”¹⁰

There has been much discussion about the importance of the choices made to formulate laws, which started, it seems, in the study of non-Near Eastern law systems that also use the conditional and relative phraseologies. These discussions see the question in evolutionary terms, with the relative form as gradually replacing the conditional one. Roman law of the early Republic, for example, used the conditional almost exclusively, while in the days of Augustus the relative was equally common. Many scholars see the conditional phrasing as more primitive, in essence the transformation of a story into a simply expressed legal principle by adding “if” at the beginning. The format has been described as “quasi-natural for legislation,”¹¹ while the relative is considered to represent a higher level of abstraction, albeit still limited. When both forms were used together, the relative indicated the overall case, and the conditional the more specific.¹² The preponderance of the conditional in early Babylonian law and its total replacement by the relative in the first-millennium Neo-Babylonian Laws seems to support the evolutionary argument,¹³ although some historians of Babylonian law reject that idea because both formats already appeared in an international treaty of mid-third-millennium Ebla.¹⁴ Scholars of later legal systems in which both formats are also attested seem less concerned with the issue. Although Anglo-Saxon law, for example, shows a rise in occurrences of the relative clause over time, the importance attached to this seems minor. More significant was the shift to a directive strategy in which legal practices were not restricted to or qualified by a single case: “Thou shall not bear false witness,” for example.¹⁵ It seems that the perception of an evolution toward greater abstraction is inherently tied to questions about the status and purposes of ancient Near Eastern laws, something I will discuss later in this chapter.

Because the conditional formulation is considered the most basic—and primitive—way to reformulate a *fait divers* into a legal principle, scholars continue to search the extensive Babylonian legal material, including royal decisions communicated in letters, for cases that made their way into the codes. One can easily imagine that actual verdicts by the king were stripped of all their individual characteristics—the names of the people involved, the timing of the event, and so on—and turned

into a law. The occasion when someone stole a sheep and was forced to pay a fine, for example, could be turned into a law that states, “If a man steals a sheep, he shall pay a fine.” These searches have drawn blanks, however, and the isolated cases where scholars found matches between legal records and laws are highly speculative and so few in number that it is unwise to build an entire theory on them.¹⁶ The same is true for the empirical foundation of omens, which many scholars seek in the so-called historical omens, as I discussed in chapter 5. Just as we need not see actual observations at the core of the omen corpus, there is no need to see a collection of genuine cases at the basis of the law codes. Instead, there are many indications that the authors of the law codes worked within a textual tradition, liberally borrowing and modifying earlier materials, elaborating on them, and showing creativity in writing rather than recording what people in actuality did. They behaved fully like their lexicographic and diviner colleagues.

We study the contents of the paragraphs to discern the link between crimes and punishments. The discipline of Babylonian legal history would collapse were there no apparent logic. Legal historians have uncovered several of the basic principles, such as “an eye for an eye.” Some laws have been described as “absurd,” however: Hammurabi’s code demands, for example, that the son of a builder be killed if the builder’s negligence caused the death of another person’s son (§ 230). What if the builder had no son of his own?¹⁷ Indeed, this single paragraph makes little sense by itself; but it becomes logical when we see it in the context of a sequence of laws and as the result of authorial elaboration. It is easy to understand that a builder who constructs a weak house that collapses on his customer is executed as punishment (*Hammurabi* § 229); that is the “eye for an eye” principle. The next law, stating that the builder’s son suffers execution if the weak house kills the customer’s son, may sound absurd on its own, but clearly a logical extension of the same principle. We need to read the laws in context in order to understand them; we need to consider the paradigm.

The Paradigm

The U.S. Constitution organizes its text into articles and sections—for example, Article III deals with the judicial branch, section 1, with judicial power. The Napoleonic code uses books, subdivided into titles and chapters, such as “Book I: Of Persons; Title I: Of the Enjoyment and Privation of Civil Rights; Chapter I: Of the Enjoyment of Civil Rights.” We expect laws to be organized in such a way that consultation is easy,

and grouping together items by areas of life makes much sense. When modern scholars discovered Hammurabi's code and other Babylonian laws in the early twentieth century, they sought to comprehend the principles behind their organization. They focused on the contents of laws and tried to understand them according to concepts derived from Roman or later European systems, which led to a great deal of frustration, as the codes flaunt distinctions we take as basic, such as between civil and criminal law. Everyone agreed that there was a clear tendency to group related subjects together—although some considered the systematization “primitive.” It is indeed possible to develop headings and rubrics that resemble those found in the American and French documents I just cited, but the groupings often include a few laws only, and the lists seem to jump back and forth between topics. The ancient codes can raise a subject, switch to another one, and then revisit the first. For example, the Laws of Eshnunna start to address the question of marriage in §§ 17 and 18, but they then talk about loans and false distraint, to return to marriage in §§ 25 to 30. At the very end of the laws an additional paragraph regarding divorce (§ 59) is inserted into a sequence on criminal negligence. No wonder scholarship could call the structures “unscientific” and “chaotic.”¹⁸

Interestingly, we are not the first to try to develop rubrics and subdivisions; some Babylonians a century or so after Hammurabi wrote down a few. Three manuscripts of his laws include such information;¹⁹ they are large tablets, much damaged today, that contained long excerpts from the laws. Two of them seem to have been produced in the same scribal setting, and in origin may have been part of a series that covered the entire list of Hammurabi's laws. The authors introduced the Sumerian term “legal decision” and then stated a topic, such as “Concerning Distraint and Obligation,” before citing a number of laws in the original Akkadian. We are sometimes startled by their choices. For example, one manuscript gives the rubric “Legal Decisions Concerning Soldiers and Marines,” and the laws that follow indeed relate to these professions (§§ 26–35). But then a new rubric appears, “Legal Decisions Concerning Field, Orchard, and House,” although the laws below it continue to talk about soldiers and marines (§§ 36–39). More confusing to us is the fact that paragraphs 35 and 36 are actually so closely related that many scholars see the second to be a clarification of the first. Why did the ancient commentator separate them by the inserting the second rubric?²⁰ Although only seven such rubrics are known today, as the manuscripts in which they appeared were rare and are now in-

completely preserved, it is probable that scholars of the later Old Babylonian period had subdivided the entire code into clusters based on the contents of the laws.²¹ In all codes the sequence of clusters progresses through different areas of the law with a rationale that is not clear to us. Certain areas of life were selected for inclusion, while others closely related were omitted. The Code of Hammurabi deals with cattle and agricultural fields, but it almost entirely ignores the work of shepherds, vital to Babylonia's economy. It lists various possibilities of manslaughter and false accusations of homicide, but does not mention the straightforward murder of one man by another. The aim was clearly not to cover all aspects of the law, but to review a selection of topics.

The internal structure of clusters is quite clear, however, especially when we consider it in the light of other Babylonian writings that use the list format. A paragraph's meaning is really only evident within the context of those surrounding it. Consequently, when a later code borrowed a case from an earlier one, the new context into which the case was slotted forced a reinterpretation. Take the case of the goring ox, for example, which, as I stated before, was almost a literary *topos* shared by several codes. The Laws of Eshnunna and those of Hammurabi both treat several aspects of it, but in very different contexts. Those of Eshnunna introduce it as a new topic after a discussion of slaves, and consider three options: an ox kills another ox (§ 53), an ox declared dangerous by city authorities kills a free man (§ 54), and the same type of ox kills a slave (§ 55). The last two cases lead to a consideration of other possibilities of criminal negligence, first by the owner of a vicious dog who kills a free man or a slave (§§ 56–57), then by a house owner who ignored warnings that a wall was in danger of collapse and thus caused a man's death (§ 58). Carelessness in preventing a foreseeable accident was the focus of these laws. In contrast, in Hammurabi's code the goring ox laws appear in a context that focuses on that particular animal. Nine paragraphs discuss things that could happen to a rented ox (§§ 241–49), the final one of which treats the death of the animal through an act of god. That gave rise to a consideration of three cases where the animal caused death: first an ox unknown to be dangerous killing a man on the street (§ 250), then one identified as a gorier killing either a free man or a slave (§§ 251–52). That ended the cluster of laws dealing with oxen. Even if the contents of the laws concerning goring oxen are similar, their varying contexts force us to read them in a different light.

The clusters show that individual laws were grouped together using two basic principles: opposition and pointillism. The first was very

simple, as in many cases the premises could be changed to create the reverse situation.²² Thus a surgeon's successful intervention, to be rewarded, naturally led to a consideration of what happened when he failed:

If a physician makes a major cut with a bronze knife into an elite man and cures him, or opens an elite man's temple with a bronze knife and thus saves his eye, he shall take ten shekels silver.

If a physician makes a major cut with a bronze knife into an elite man and kills him, or opens an elite man's temple with a bronze knife and thus blinds him, they shall cut off his hand. (*Hammurabi* §§ 215 and 218)

In the situation in which a man abandoned his city and wife, his ability to reclaim the latter should he return depended on whether his absence was involuntary or voluntary (*Eshnunna* §§ 29–30). Far from all cases display such pairing, but the principle of opposition, so dominant in omens, was important in laws as well.

More prominent in laws was the principle of pointillism: every paragraph was but one example in a series of options that together painted a full and nuanced picture.²³ Knowledge was thus cumulative, with each law gaining meaning because of its association with the others surrounding it. Sequences were generated in two ways, either by adding new conditions or by following paradigmatic series. As was the case in lexical and divinatory lists, an entry in a law code could be elaborated further by making it more specific. The agglutinative character of the Sumerian language at the heart of the lexical material naturally allowed for the creation of word-strings. Likewise, in law a basic idea could be made more specific by adding elements. For example:

If there is either a soldier or a marine who is taken captive while serving in a royal fortress, they shall give his field and orchard to another and he shall continue his service obligation. . . .

If there is either a soldier or a marine who is taken captive while serving in a royal fortress, and his son is able to perform the service obligation, the field and orchard shall be given to him, and he shall continue his father's service obligation.

If his son is too young and unable to perform his father's service obligation, one third of the field and orchard shall be given to his mother, and his mother shall raise him. (*Hammurabi* §§ 27–29)

In order to understand the final paragraph we have to repeat the premise of the preceding two. All three need to be read as a group that proceeds from the more general case to the more specific.

The authors generated new laws not only by becoming more specific, but also by logically applying principles as if they formed a paradigm. These principles do not follow what we would call legal reasoning but were connected to Babylonian daily life.²⁴ Social hierarchy provided one such principle: in the lists of bodily injuries Hammurabi's code first deals with members of the elite, then with commoners, and finally with slaves as victims; women are considered separately from men, and the paragraphs prescribe the punishments of those who cause them to miscarry or die (§§ 196–217). An alternative order was householder, son of householder, and slave (§§ 229–31). Another logical sequence surveyed parts of the body. The Laws of Eshnunna list injuries to nose, eye, ear, face, fingers, hand, foot, and collarbone (§§ 42–46).²⁵ When legal proceedings are treated, they follow the chronological order of an actual case: accusation, testimony, and verdict (*Hammurabi* §§ 1–5). When fees for laborers are set, the harvester comes before the winnower (*Eshnunna* §§ 7–8). Fees are listed in order from the higher to the lower ones: it cost 20 liters of grain to rent an ox for the day, 10 for a donkey (*Hammurabi* §§ 268–69). The patterns resembled the use of parallelisms we saw in lexical texts, and could also lead to unrealistic entries, albeit much fewer. When Hammurabi's code discusses the hire of animals for threshing grain, it starts with the expected oxen, then mentions donkeys, animals that appear less suitable but were paired with oxen in many other laws, and finally brings up the option of goats, such unruly creatures that it seems impossible that they were ever used for the task (*Hammurabi* §§ 268–70).²⁶

In essence, the ability to generate new laws was unlimited, but the codes remain short when compared to lexical lists and omen series. To my knowledge no one has ever investigated what determined the lengths of the preserved codes. The earliest ones, those of Ur-Namma, Lipit-Ishtar, and Eshnunna, were relatively brief, and although they are incompletely preserved we can say with little doubt that their full texts did not exceed 100 laws. Then suddenly the Code of Hammurabi came up with close to 300 paragraphs not really by adding new areas of law but by elaborating on existing topics. For example, the treatment of marriage and adultery, which in the Laws of Eshnunna occupied four laws (§§ 27–30), was expanded into nine laws in Hammurabi's code (§§ 128–36). This increase in the number of laws could have gone much

further, but at some point Hammurabi decided to stop. Why? Perhaps the object he used to display his laws played a role in setting the length of his code. He did erect more than one stele, and those lost may have had a different appearance from the only surviving example, but the form of the Louvre stele cannot be ignored in our discussions of the laws inscribed on it. It clearly was a valuable object in itself, a basalt monolith obtained from distant mountains in Iran or northern Syria. The sculptor maintained much of its original outline, only smoothing its surface to create a level base for the inscription.²⁷ Although there are still blank spaces—much of the blank area on the front was the work of Shutruk-Nahhunte, who erased seven of the original twenty-three columns (see chapter 6)—there is little chance that a much longer text could have been inscribed on it. Did the author of Hammurabi's code, whoever that scholar may have been, consult with the sculptor before deciding how much to write? Did the size of the stone selected for the inscription—a very valuable item in its own right—dictate the number of laws that could be composed? These factors fall entirely outside the area of law, but need to be considered when we look at Hammurabi's document. Other codes likely were inscribed on monuments as well, so we should keep space consideration in mind when looking at the work of all the early lawgivers. The extent of the law collections they generated could have been dictated by the size of the monuments onto which they intended to display them. There were thus practical limits on their creativity, something the authors of lexical and omen series did not face.²⁸

There are always connections between successive laws; there is always some resemblance. As mentioned before, when the Code of Hammurabi moves from the laws concerning soldiers and marines—their service, capture, etcetera—to those concerning fields, it starts with fields of these professional groups (§§ 26–39). A sequence of laws could be inspired by the appearance of a shared word in them. For example, § 38 of the Hittite laws, which deals with a litigant killing an aggressive supporter of his opponent, follows § 37, about the death of men during the pursuit of someone who ran off with a woman. The word for “supporter,” Hittite *šardiyaš*, seems to have inspired the author to place these two laws together.²⁹ But as was the case with lexical and omen texts, a succession of laws that seems smooth and logical to us can be interrupted as if free association led the author astray. The Laws of Eshnunna, for example, start off with a list of prices of commodities and the fees and wages to be paid for tools and personnel (§§ 1–14): 180

shekels copper is the equivalent of one shekel silver (§ 1); to hire a wagon with its oxen and driver for a day, one has to pay 1/3 shekels of silver (§ 3); to hire a boat and its skipper costs two liters of grain a day (§ 4). The last statement inspired the author to digress about boats and boatmen: What happened if the latter were negligent and sank the boat (§ 5) or if someone seized a boat fraudulently (§ 6)? The text then returned to the topic of fees for agricultural laborers (§§ 7–10). As a result of this practice of digression, certain topics are addressed in multiple places of the same code. In the Hittite laws, for example, cases of homicide appear twice in the first series (§§ 1–6 and 42–44) as well as in one paragraph in the second (§ 174); two clusters deal with land tenure laws (§§ 39–41 and 45–56).

Although the organization of the laws appears confusing to modern audiences, the sequence of laws in Near Eastern codes was not irrational or primitive. It was based on elements of Babylonian logic that were not legal in our sense of the term but rooted in daily practice, social hierarchy, and even word association. The lawgiver's task was to establish sequences with a creative logic that was able to integrate within the system any case that could conceivably arise. If the penalty for causing an elite woman to miscarry was ten shekels of silver, then it was logical to demand only five shekels when the injury happened to a commoner. If the fee for hiring an ox was set at one level, then it was logical to set the fee for hiring a donkey lower. The elaboration was purely rational and stuck to a set of principles that only become apparent when we look at the laws within their clusters. In theory, lawgivers could continue to elaborate, adding new specifications or expanding the paradigm. In practice, they were restrained, perhaps because they knew that the laws were to be carved in stone, an expensive medium with space limitations.

Compared with what we find in lexical and omen series, the logic in the paradigmatic sequences of law codes was rather simple, based almost exclusively on physical reality. All sequences belong to what I called thematic classification in lexical paradigms. Although aural resemblance occurred—I quoted an example from the Hittite laws—it was rare, and we find no sequences based on the visual similarity of cuneiform signs as we did in lexical lists. This probably was a result of the purview of the legal codes: they dealt with the present and with mundane affairs. The focus on the contents of words in Babylonian codes rather than on their written appearance made it possible for writers using other scripts to adopt the format. The authors of Hebrew,

Greek, Latin, and Anglo-Saxon codes, who employed lists resembling those of the Babylonian codes, could create paradigmatic sequences irrespective of the script they used.

Are These Laws?

When the text of Hammurabi's stele now in the Louvre first became known to modern audiences in 1902 it did so under the title "Code des lois de Hammurabi (Droit Privé),"³⁰ immediately recalling such milestones in European legal history as Justinian's code or Napoleon's. The handy sobriquet stuck but has provoked a now sizable scholarship on whether the term "code" is apt or not. Legal historians tend to see juridical powers in the paragraphs Hammurabi listed, while scholars of Babylonia's languages and its culture more generally consider the whole of the text, including its prologue and epilogue, to have a different purpose. They call it a scientific treatise, a scribal exercise, or a royal apologia, but not a code. It is rare today that scholarship addresses the code without raising the issue, although some lone voices have called on the discipline to move beyond the question. As usual, much of the disagreement is the result of different understandings of the terms used. If "code" only refers to innovative legislation that is binding, few texts merit the title. If it can be a compilation of the legal practices that are current, more fit the description. Hammurabi's code and its ancient Near Eastern parallels have difficulties even in the latter case, however.³¹

We are very fortunate that a mass of actual legal documents, including contracts and court decisions, have survived from ancient Babylonia and that letters regularly refer to legal issues. We are thus able to compare the clauses in the codes to daily reality, and there was an undeniable mismatch. Within the vast corpus of legal documents, no reference to a code appears. And while in Greek trial accounts legal paragraphs were quoted, Babylonian judges did not justify decisions by citing a law. The few isolated references in the Babylonian record to a stele and legal principles are too vague to support the idea that litigants and judges had them in mind during actual cases, whereas Babylonian royal decrees regarding debt annulments appeared repeatedly as the justification for legal action. We also find contradictions between the codes' precepts and actual practice. Many lawgivers set the fines to be imposed when someone was caught stealing, for example, but actual court records attest to much smaller ones. Moreover, the terminology

of the codes did not always find its way into contracts. Laws regarding dowries and bridal gifts, for example, carefully distinguished between various types of contributions, but in actual practice marriage contracts lumped them all together.³²

Less damning are the commonly voiced objections that the codes were not innovative and encompassing. With few exceptions, Near Eastern codes give the impression that the rules they expound had existed since time immemorial, even if they explicitly connect the codes to specific rulers. Comparison between codes shows that many entries were not new but repetitions of what earlier kings had previously stated—take the case of the goring ox, for example. Still, sometimes innovations were noted. Ur-Namma first described the rules regarding slave sales before his reign and then stated his new requirements. The Hittites explicitly spelled out a number of updates, mostly a reduction of monetary fines by half, but also the conversion of physical punishments into pecuniary ones.³³ The Hebrew Bible presents the entire set of Covenant laws as a divinely decreed new system—we know, however, that the actual precepts were not always original. But is novelty a justified requirement for a code? The Roman emperor Justinian first commissioned his scholars to compile what already existed before he added his own laws, and we see him as a major lawgiver.

Ancient Near Eastern codes were certainly not encompassing in the areas they covered. Many were very brief, and even the longer ones ignored many topics one would expect to find. Part of the problem here derives from the case-by-case formulation. The physical injuries the code of Hammurabi considers were limited to damage to the eyes, teeth, or bones, and the honor-related slap in the face, leaving aside a host of other possibilities. One can argue that these set examples from which it was easy to derive principles. More bothersome is the fact that entire areas of life were not addressed—for example, sheep rearing is not dealt with in Hammurabi's code. Historians of later law codes seem less bothered by the lack of complete coverage, however. Germanic codes, for example, have been called “annoyingly incomplete,”³⁴ but that has not provoked a rejection of their status as laws. So perhaps some flexibility should be in order here.

The reason Germanic codes and the like are considered legal writings whereas many other identifications are used for Near Eastern ones may be that in the latter case there exist striking parallels with other genres of scholarly literature absent in these later periods. The analysis of Babylonian laws shows that they have the same syntagmatic and

paradigmatic structures as both the lexical texts and divinatory writings. The fact that laws and omens share the same format is evident; one example of a pair of omens will suffice here to show it:

If on the right side of the liver a piece of flesh in the shape of a pustule is torn out—The enemy will seize a town on my border.

If on the left side of the liver a piece of flesh in the shape of a pustule is torn out—I will seize a town on the enemy border.³⁵

The parallelism with lexical materials may be less conspicuous, but when we read a full entry as a consecutive sentence the similarity is obvious: “If the Sumerian logogram TAK₄·TAK₄, is read tak-tak—it is called ‘double (minnabi) tak’ and means in Akkadian *ezēbu*, ‘to abandon,’ and in Hittite *arḫa dalumar*, ‘forsaking.’”³⁶

The comparability of the various genres of writing is also unmistakable in the sequencing of entries. Babylonian laws are grouped together using the subject matter as one criterion, as is the case in thematically organized lexical lists and in omen series; and in all genres the sequences can be interrupted because the author thought of an entry using the same word or for another formal reason. The organization of the clusters is also alike. Lexicographers created groups of words by adding elements together, taking advantage of the agglutinative characters of the Sumerian language. Writers could expand any noun simply by attaching other nouns, adjectives, and grammatical elements to it. They did not need to take into account whether or not the terms they wrote down had actual referents. Diviners likewise explored every element in the universe by giving it properties—color, time of appearance, and many others—developing long sequences of possibilities without a concern for whether they were real or imaginary. In law, too, the authors elaborated paradigms in their writing, considering various options, such as social class, whether or woman had children or not, and so on, although they were much less extravagant in their creativity than the lexicographers and diviners, probably because their purview was the mundane human world only.

There is, however, a striking difference between divinatory and legal writings in their practical use. While in reports diviners repeated omens verbatim and used them as the basis of their professional recommendations, no law paragraph was ever quoted in preserved legal writings, which are very extensive for the Old Babylonian period and include court decisions. There are only two cases in which an allusion is made

to stipulations written “on the stele,” and there is never an explicit reference to paragraphs of law. This absence is startling especially if we see the codes as collections of actual verdicts, and various explanations have been suggested, such as that the laws were not enforceable.³⁷ The relationship between the written and reality was as complicated in the case of law collections as for lexical and omen series, perhaps even more so. If all were scholarly creations based on coherent reasoning within the text, as I argue, they needed no actual referents. Somehow diviners got away with quoting impossible occurrences—the magnitude of their sphere of inquiry possibly surpassed routine human comprehension. Lexicographers could dream up convoluted phrases—it did not really matter. But laws were perhaps too close to everyday reality. Scholars made up statements that were logical within the context of their text; but they were not quotable. One can call the law collections scholarly treatises on the subject of law; they were not legislation.³⁸

The scientific nature of the codes is thus quite clear, but that does not mean that they did not have other functions as well. Hammurabi's stele obviously was a royal inscription presented in monumental format, and possibly all early Babylonian codes were carved on stone at some point. The texts of monumental inscriptions in Babylonia were very varied in nature. Most of the earliest stone inscriptions were records of the transfer of land ownership. The best-preserved and longest continuous text carved on stone before Hammurabi's reign was the obelisk of Manishtushu, king of Akkad around 2270. A diorite monolith, about 1.40 meters high and with a square base of 60 by 60 centimeters, the obelisk was taken to Susa in the twelfth century at the same time as Hammurabi's stele. Covered exclusively with writing, it chronicles the king's purchases of large tracts of land in northern Babylonia.³⁹ If such a record could stand as a royal monument, Hammurabi's code, with its framing prologue, praising the king's good deeds for gods and people, and epilogue, cursing those who would deface the text, certainly could too. Early monumental inscriptions regularly became the models for later scribal practice, so it is no surprise that the codes of Ur-Namma, Eshnunna, and Hammurabi entered the school curriculum.

Justice and Wisdom

Hammurabi's code had an especially long history in the context of scribal practice. As we saw, in Babylonia and Assyria it was copied out on clay tablets through the centuries. Why did his text have such a great

appeal? We cannot say that his laws became normative. So something else must have inspired later generations to preserve the text. In his epilogue the king focused on his persona as a King of Justice (*šar mišarim* in Akkadian), whose subjects could count on him as their champion against injustice. These words of his are often quoted:

Let a wronged man who has a court case come to the statue of me as King of Justice and let the words of my inscribed stele be read out to him.⁴⁰ Let him hear my precious words. Let my stele make his court case clear to him. Let him see his verdict, and set his mind at ease saying: “Hammurabi . . . brought about well-being for the people forever and made the land have just ways.” (*Hammurabi* xlvi 3–38)

Hammurabi hoped to inspire future generations, urging later kings to study his text and use it as a guide for removing “the evil and the wicked from the land” (xlvi 59–94). These statements have understandably prompted modern scholars to stress the king’s relationship to justice and the ideal of righteous rule in Babylonia, ingeniously uncovering other clues in the text that reinforce that idea.

There is no doubt that justice was a significant part of Hammurabi’s message, and he was very successful in conveying this to his modern audiences. But there was another aspect to his inscription as well. Hammurabi stated at the very end of his prologue that he set forth *kittam u mišaram*, a word pair quite often found in first-millennium texts.⁴¹ Etymologically these terms derive from the verbs “to establish firmly” (*kānu*) and “to straighten up” (*ešēru*), and multiple translations in modern languages are possible. Scholars who have sought to emphasize the code’s focus on justice have suggested “honesty and justice,” “equità e giustizia,” “Recht und Gerechtigkeit” and so on, with *kittum* being narrower in meaning than *mišarum*.⁴² Those are valid translations, but we should not forget that *kittum* also means “truth” and appears regularly in a typical Akkadian pairing of opposites, “truth and falsehood.”⁴³ Thus in the epithet list at the end of the *Babylonian Creation Myth*, the god Marduk is called:

mušēšir kitti nāsihi itguru dabāba
ša sarti u kittu umtassâ ašruššu

Who administers justice, uproots twisted testimony
In whose place falsehood and truth are distinguished.⁴⁴

The myth's author played around with the various meanings of *kittum*, first connecting it to justice in a combination with the verb *ešēru* and the concept of *mišarum*, then contrasting it to falsehood. Likewise, while justice certainly was a great concern of Hammurabi's code, truth was so as well. The king repeatedly mentioned truth in his epilogue. At its very beginning he wrote: "Those are the just decisions that Hammurabi, the able king, made and he thereby directed the land along the course of truth and the correct way of life" (xlvi 1–8, *ūsam kīnam u rīdam damqam*, literally, "the true path and good common sense"). He framed the list of laws with references to truth—in the last sentence of the prologue and in the first of the epilogue. The code was not just a confirmation of royal justice, but also a work of the king's wisdom. It required wisdom to know what is true, and the code was the epistemological tool that gave true insight into the law. Hammurabi thus expressed the idea that justice and wisdom are closely related many centuries before Plato stated it in his *Republic*. Plato's philosopher-king ruled in just ways because he had the wisdom to do so. Hammurabi claimed the same: he had the knowledge to "direct the land along the course of truth and the correct way of life." Importantly, the laws were not god-given but human creations. Hammurabi acknowledged later in his epilogue that he received insight into truth from the sun god Shamash (xlviii 95–98), but the laws were his pronouncements. His role was thus very different from that of Moses, who was said merely to have passed on to the people of Israel the laws that the biblical god had given him.

Hammurabi's fame in later Babylonian tradition in fact derived from his wisdom. He had been a great warrior and had publicized his successes proudly, but the monuments in which he did so were destroyed in later years, and he was not much remembered for his military feats.⁴⁵ And although his code survived through the ages, it did not really make him a King of Justice. Instead, it gave Hammurabi the aura of a sage. The ancient title of his code appeared in a late Babylonian list of literary texts as "a source book for learned scholars dealing with the more esoteric matters of Babylonian thought,"⁴⁶ and the king was repeatedly associated with wisdom. I have already quoted the colophon of a first-millennium catalogue of medical texts in which the author Esagil-kīn-apli proclaims himself the descendant of Asalluḫi-mansum, sage of King Hammurabi,⁴⁷ who by association was considered wise as well. In the same period, an astrologer informed his Assyrian royal master that the

manuscript he used was defective and that an ancient tablet made by King Hammurabi fetched from Babylon was a superior source. Hammurabi was even credited with having invented an eye salve.⁴⁸ No astrological or medical texts of Hammurabi have been preserved, and it is unlikely that he ever wrote any, but his code so strongly communicated the idea that he was a wise man that later Babylonians remembered him for that. His code shows that he knew truth, and we should thus read it as a work of epistemology.

In that capacity, the Code of Hammurabi and other Babylonian law codes explored and analyzed the observed and the potential in the legal area. The authors did not just pile cases on top of one another using vague topical considerations to group them, but weighed how they could elucidate the meaning of one law by giving a complete opposite in the next one, for example. The practice of listing cases in the codes—and in other Babylonian scientific writing—has been regularly criticized as horizontal thinking that can only multiply examples and fails to cover all grounds, unlike the Classical approach that creates abstract categories to be used as measures for any potential case. The Graeco-Roman methodology is often considered superior, as it is all-encompassing and is thought to have supplanted the weaker Babylonian practice.⁴⁹ This seems to ignore that the case-by-case format survived in Greek law into the Classical period, as quotations in court speeches show, and it still flourished in medieval Europe; it existed in parallel with more abstract statements about law as found in philosophical writings. The verdict of inferiority contains a strong value judgment, especially when it comes from scholars trained in a tradition that expresses itself through hierarchical principles. We cannot see the laws in isolation from other areas of Babylonian science whose format they clearly share. All show the same intent—they search for truth.

I mentioned before that Hammurabi's code was the most explicit but seemingly also the final statement of royal justice as inspired by truth. Was it coincidental that around this time diviners began to implore the gods to issue verdicts using the same language as Hammurabi did? They asked of them, "May you give a judgment in truth and justice"—in Akkadian, *ina kittim u mišarim lidīnu dīnam*.⁵⁰ Did kings lose their powers of wisdom, and did their subjects turn to the gods to find protection against the irrational? When many centuries after that king's death people saw Hammurabi's stele, they may have regarded it a testimonial to a kind of wisdom that had long vanished. It was only because he had put down his words in writing that the conditions of the past could be

remembered. The written word guaranteed Hammurabi his status as a true sage.

Writing and the Law

The stele of Hammurabi is striking as a monument because of the inscription that covers it. The stone contains a pictorial representation that shows the seated sun god, Shamash, handing the king two symbols whose meaning is much debated—the rod and the ring—but the relief is small and visually much less eye-catching than the text, carefully carved in a script reserved for stone monuments at the time. Other works of early Babylonian art used writing as the focal element; the obelisk of Manishtushu mentioned before contains nothing but inscribed text. The message seems clear: these are records of something very significant, and the physical act of writing them down, their entextualization, or *Verschriftlichung* as the German says more eloquently, accentuates that importance. We know that Hammurabi set up more than one stele, and other Babylonian lawgivers probably also had carved versions of their texts. Those were public monuments that clearly communicated that there was a law in the land.⁵¹ And that law was accessible to all. In a passage of his epilogue quoted above, Hammurabi invited the wronged man to “come to the statue of me as King of Justice and let the words of my inscribed stele be read out to him” (or “may he read aloud my inscribed stele”). It is rather unimportant whether the Babylonian read the stele’s text himself or had it read to him, as the invitation was more rhetorical than real. It is unlikely that anyone ever scanned the text to find a paragraph relevant to a court case, as this would have required a remarkable ability to sight-read the consecutive carvings of uniform cases. But that is also true, of course, for other monumental law codes like the Greek one at Gortyn, or for the large majority of monumental carved inscriptions. Who read Caesar Augustus’s *Res gestae* on the walls of his temple in Ankara? Or for that matter, what U.S. legislator today deciphers the inscription above the speaker’s chair that I quoted at the start of last chapter? The presence of these inscriptions is what counts, not the fact of their being read. In the case of codes, the public inscriptions guaranteed to everyone that there was a logical and defined system of laws, not just arbitrary dictates subject to the ruler’s whims and wrapped in secrecy. Just as omen texts, which were much more elaborate than the laws, assured humans that the gods made decisions according to certain rules, the laws told

the people that the king and his representatives made decisions according to a set of rules, and that these rules applied to everyone.

The written assertion that there was a rule of law was thus more important than the contents of the individual paragraphs. The “codes” were not superfluous in a system governed by customary law maintained through oral tradition, as many scholars suggest.⁵² The act of writing them down, their *Verschriftlichung*, gave them permanence and publicity and an independent existence; they became reified. From a comparative anthropological perspective, it is hard not to see this as a seminal change in society,⁵³ even if we accept that orality and literacy are not stark opposites. The connections between writing and law in Babylonia go far beyond the codes, however. One of the most common items of writing in that culture was the legal contract, that is, the record of a completed transaction between two parties or the promise of a future one. These introduced a third element in the relationship alongside the two contracting parties, an unalterable item that transcended the boundaries of time, space, and social class.⁵⁴ The majority of contracts did not need to survive long: once a loan was repaid the contract recording it was destroyed. Longevity was, however, a critical factor in real estate records. When houses, fields, and orchards passed on from one generation to the next, it was important that the legal owner kept inheritance contracts and earlier sale documents. We can reconstruct dossiers that were maintained for 150 years.⁵⁵ The physicality of the written record made it possible to move it in space and send it from one contracting party to another, even through an unaffiliated intermediary. The portability of tablets made long distance trade much easier, as the early-second-millennium archives from the Assyrian trade colony at Karum Kanesh in central Anatolia illustrate. Merchants in the colony relied on the credit that investors in distant Assur provided them, and loans recorded in writing were crucial to their ability to conduct their trade. The tablets detailing such loans were important documents and well protected. Encasing them in an envelope to prevent alteration was already an old practice by the early second millennium. We know that the merchants stored tablets in a sealed box, which they kept in a sealed room, but still there were cases of tablet theft.⁵⁶ A tablet could be traded as a letter of credit and therefore took on a value of its own. When loans were passed on from one creditor to another, the records involved were moved to the new creditor’s archive.⁵⁷

The written legal contract first appeared in Babylonia in the early third millennium, and document land sales. These early records unmis-

takably announced their special character and importance through their physical appearance; they were carved on stone monuments often combining the text with the depiction of several individuals. The obelisk of Manishtushu of the twenty-third century, already mentioned, is the most elaborate of such records, but several others exist going back in time to the start of the third millennium.⁵⁸ So the first legal documents in Babylonia were prepared with great care and at great expense.

Soon after the mid-third millennium loan contracts appeared, and these became the most frequent form of legal text in Mesopotamia.⁵⁹ Other types of sale documents, inheritance divisions, marriage contracts, and a variety of agreements between parties followed over the centuries. By then the legal record was in the form of a routine object, the clay tablet. Despite the abundance of such contracts, there is a strong current in modern scholarship that denies them an independent role. Many scholars see the contract as tangential to the transaction it records, merely an *aide-mémoire* and of secondary importance in the settlement of disputes, less significant than witnesses.⁶⁰ From an anthropological perspective this seems counterintuitive—people do not go through the elaborate effort to create documents if they do not consider them important—and it ignores a substantial number of records that attest to the introduction of contracts as conclusive evidence in courts. A substantial corpus of records surviving from twenty-first-century Babylonia are identified in Sumerian as *ditilla*, “closed case”; these report the outcome of a court decision. The mere fact that such documents exist suggests that a written format was preferred over the memories of the judges. Moreover, these digests often assert that a party in the dispute presented the relevant tablet as proof. One example should suffice:

The heirs of Lugula raised a claim against the daughters of E’urbi, slave of Lugula. Ninduga, child of the slave E’urbi, brought before the vizier the tablet of Lugula, that Lugula, when alive, had appeared and declared: “In the name of the king, I swear, that herewith I set free the daughters of my slave E’urbi.” The children of E’urbi proved themselves to be free from the heirs of Lugula. Ur-Lama, son of Luĝu was the bailiff.⁶¹

Perhaps these occurrences are few when compared to the calling up of witnesses in court, but the independent legal status of the written contract cannot be denied in the cases that exist. Witnesses and contracts are not mutually exclusive; on the contrary, most contracts indicate that

witnesses were present, and Hammurabi's laws repeatedly place the two on the same level.⁶² The oath was an equally important third assurance of correctness and truth. Hundreds of contracts state that a party in a transaction swore by god or king.⁶³ In court judges had to weigh evidence taking all three into account. Take this case, for example:

[Subject of the case] Concerning a house-plot of 12 square meters in area within the cloister [of Sippar], adjoining the house of Lamassi the *hierodule*, the full share of a jointly held prior estate, which Amat-Shamash daughter of Supapum had bequeathed to her [adopted] daughter, the [natural] daughter of Sin-eribam.

[Accusation] Nidnusha and Shamash-apili, sons of Iddinunim, brought suit against the daughter of Sin-eribam, stating thus: "Amat-Shamash did not bequeath to you any house whatsoever, and executed no document in your favor; upon her death you yourself drew up [such a document]," that is what they stated. They [the litigants] pleaded before Sumu-Akshak [the chief judicial authority of Sippar].

[Investigation] For [the purpose of hearing testimony of] her [the defendant's] male and female witnesses, [these divine emblems] entered the cloister: the Standard of the god Shamash, the Saw of the god Shamash, and the Serpent of the goddess Ishhara. Her male and female witnesses having testified that she [Amat-Shamash] had, while still alive, bequeathed [to the defendant] the house and drawn up the document, the judges proceeded with the case.

[Verdict] The judge(s) pronounced the penalty to be imposed upon them [the plaintiffs]; the judge(s) cast . . . upon them. Nidnusha, Shamash-apili, and the brothers of Amat-Shamash—as many as there may be *who held joint shares in the earlier (estate)*—may not re-instate suit against the daughter of Sin-eribam. If any among the brothers of Amat-Shamash—as many as may be so counted—should [again] institute suit, since their case has been terminated, it is they [the plaintiffs] who will be held responsible.

[Subscript] A legal case before Shamash. [The texts lists the names of three or four judges.]⁶⁴

The plaintiffs started the case on the basis of a claim that a document that bequeathed property was counterfeit, thereby implicitly acknowledging that such documents had legal value. Witnesses, who spoke under oath before symbols of the gods, confirmed the validity of the

transaction and the written documentation of it, which convinced the judges that the lawsuit was dishonest. They considered both written and oral evidence. The document was at the center of the case here, and its reliability had to be ascertained.

Witnesses could tell untruths, as the Laws of Ur-Namma acknowledge (§§ 37–38), or forget the details of a transaction in the past.⁶⁵ People could swear false oaths—as a baffled litigant learned when trying to recover a loan from a repeat perjurer before the gods.⁶⁶ Although there are some (but remarkably few) accusations of false documentation, the above case being one example, the written contract did not lie. The relative weight of these three sources of legal authority probably varied from case to case—as they do in court today—and had to be established by the judges, but it seems strange that we deny one of them any merit. The presence of written evidence made the Babylonian legal system radically different from others without such materials. It opened up entirely new ways of considering a transaction and a subsequent court case, were that to occur. There existed an independent source of certainty that must have provided some sense of security; why else would one bother to keep the sale documents that functioned as title deeds for real estate property? Further, on a less tangible level perhaps, writing gave an explicit assurance that was otherwise lacking: the royal proclamations of laws guaranteed that there was a coherent system of justice in place, and even more, that it was grounded in wisdom. That must have set people's minds at ease, and indeed still remains today what citizens expect from their governments.

PART V



A BABYLONIAN EPISTEMOLOGY

CHAPTER 8

Babylonian Epistemology in History

Light of the great gods, resplendent illuminator of the universe,
Lofty judge, shepherd of the celestial and earthly regions,
As if they were cuneiform signs you explore all lands with your
light!

You are one who does not become tired by divination, daily
making the decisions for the denizens of heaven and earth.¹

With these lines a seventh-century poet in the service of King Assurbanipal started a hymn to the sun god Shamash, placing side by side the three areas of scholarship we have discussed in this book: Shamash was a judge, a reader, and a diviner. He easily combined the three skills, as they relied on the same principles and methodologies: the world was a cuneiform text, and the techniques of reading informed how one comprehended reality and made decisions. Scholarship was a hermeneutic exercise in the traditional sense of the word, that is, an interpretation of the multilayered meaning of texts. In ancient Babylonia this inquiry always had the ontological quality hermeneutics would not acquire in western philosophy until the modern age—the key to understanding the human condition of being in the world.² Yet, while the Babylonians shared the aims of modern philosophers, they never abandoned the primacy of the texts, and actually found in them an unparalleled power to create. It was not physical reality but writing, with its creative processes, that determined the parameters of what was possible and needed to be investigated.

Textual Creativity

We have looked at three corpora of texts, two massive in size, one much less so, but all following the same principles of composition. To express

their ideas about writing, divination, and law, the Babylonians formulated inferences: the Sumerian logogram TAK₄.TAK₄, if read tak-tak, implied the Akkadian verb *ezēbu*, “to abandon”; the split in the liver of the sacrificial animal implied the breach in the wall of the city under attack; the crime of homicide implied the death penalty. While the entries were very specific and at first glance limited in what they could cover in their use of the so-called casuistic format, the creativity this method of formulation permitted the authors was essentially unbounded. And the ancient scholars explored its creative capacities on what I have called the syntagmatic and the paradigmatic levels to the fullest extent. Through their inferential reasoning they had the freedom to generate links horizontally in the syntagm, while the list form encouraged an exploration of possibilities by expressing new options paradigmatically. In principle there was no limit to how many new inferences could be made in the syntagm or how many new entries could be added to the paradigm, but a fundamental rule of logic governed: every connection required similitude. Elements had to be comparable.

That similitude establishes logical connections is not such a strange idea. As I mentioned before, Foucault described it as the key tenet of European intellectual history before the scientific revolution.³ In Graeco-Roman antiquity too, the Stoics saw the consciousness of similitudes as the basis for intellectual growth. Diogenes Laertius, quoting Zeno, wrote that the human mind, blank at birth, developed more complex concepts through the recognition of resemblances:

General notions, indeed, are gained in the following ways: some by direct contact, some by resemblance, some by analogy, some by transposition, some by composition, and some by contrariety. By incidence or direct contact have come our notions of sensible things; by resemblance notions whose origin is something before us, as the notion of Socrates which we get from his bust; while under notions derived from analogy come those which we get by way of enlargement, like that of Tityos or the Cyclops, or by way of diminution, like that of the Pigmy. And thus, too, the centre of the earth was originally conceived on the analogy of smaller spheres. Of notions obtained by transposition creatures with eyes on the chest would be an instance, while the centaur exemplifies those reached by composition, and death those due to contrariety. Furthermore, there are notions which imply a sort of transition to the realm of the imperceptible: such are those of space and the meaning of terms. The notions of justice and goodness come by

nature. Again, privation originates notions; for instance, that of a man without hands.⁴

The range of similitudes Zeno set out was the same as the range that existed in Babylonian thought: they could be opposites, combinations, analogies, transpositions, enlargements, and reductions. But there was a radical difference between Stoic and Babylonian ideas. The Stoics focused on physical appearance. The resemblances the Babylonians saw were much more manifold as they related to every aspect of a subject, its shape and its name, both as uttered in speech and as put down in writing. Moreover, the links they established needed not be direct, and synonyms, homonyms, and cognate terms could intervene. Each step had its logic. If we accept that X implies Y—an inference that can be acceptable because X resembles Y in its written form, for example—then multiple variations or elaborations of X can lead to multiple variations or elaborations of Y. Instead of formulating the rules that guided these intellectual steps, the Babylonians listed cases in which they were applied, progressing systematically through what can seem endless minor variants that, like a pointillist painting, end up providing a clear picture. Each statement had meaning only within the overall context.

The method behind this approach was most elaborately developed in the Babylonian science of lexicography. With its focus on the building block of all writing, the cuneiform sign, lexicography allowed for the greatest freedom in the creation of logical connections. The science was iconic for Babylonian scholarship as well as its intellectual foundation. Whenever and wherever Babylonian thought was expressed in writing, lexical texts appeared. The logic of lexicography was imprinted upon the minds of anyone who engaged with written scholarship from the first moment of learning. The links made in it were considered to be natural and commonsensical; they were not to be questioned or doubted. The correlations the lexicographer could make were innumerable. We distinguish three basic principles behind them—semantic, phonetic, and graphic—and while certain lexical texts show a preference for one principle over the others, they were always at play simultaneously, and none was considered superior. As we saw in chapter 3, a sequence of some 200 entries starting with the same cuneiform sign—a graphically organized list—could be interrupted with a cluster of semantically related terms. Thousands of entries were lined up because of associations that all had an equally good logic behind them. The authors went systematically through names of body parts; levels of social hierarchies; groups of two, three, four, and more; color variations; verbs in lines of

poetry; words starting with similarly sounding syllables; words written with cuneiform signs that looked alike; and so on. The entries of paradigmatic sequences were multiplied steadily because of the wealth of options in reading each cuneiform sign. If TUG₂ was read tu, it meant “garment”; if read nam, it meant “prince”; if read umuš, it meant “reason.” And each of these Sumerian readings had several Akkadian equivalents to which translations into Hittite, Hurrian, and other languages could be added. Even more, cuneiform signs made up of compound elements could take on all the meanings of these component parts. Signs could also be given all the interpretations of similarly sounding signs. A panoply of options existed, and each one made sense and had equal validity. One can see lexicography as the purest of Babylonian sciences, the most theoretical in that it established the rules and possibilities for interpretation that could be used elsewhere. It asserted that elements that contained any of the relationships just mentioned could be compared to one another. Lexicography’s approach was theoretical in that it was not bounded by anything except the written elements it studied. It was pure science.

Every student of Babylonian writing was exposed to this type of reasoning from the moment instruction started, and it is no surprise that the select few who ended up tackling the advanced sciences still adhered to it. The Babylonians themselves called the scribal art “the nexus of all wisdom.”⁵ The interpretative modes they explored in lexicography were at the basis of cosmology, as we saw in the *Babylonian Creation Myth*. These modes supported the efficacy of rituals; they enabled the writing of scholarly commentaries. I have studied them here in detail in the areas of divination and law. The Babylonians saw these areas as directly relevant to their daily lives and took both very seriously. They had different purviews, however: divination involved the entire cosmos as governed by the gods, while law involved everyday existence within the state as directed by the king. Since the divinatory corpus explored all aspects of the universe, its extent was unlimited, and those who composed omen series exploited in full all the creative principles established by lexicography. They used the same sequences of body parts, social hierarchies, color variations, and numbers as did the lexicographers. Additionally, phonetic and visual resemblances helped them create syntagms: the words to express ominous signs sounded like those in their interpretations, and the ominous signs themselves looked like the cuneiform signs to write the apodoses or like items mentioned in those. The connections were expanded by taking

advantage of all aspects of cuneiform writing as expounded in the lexical lists. If physical occurrences in the protases implied events in the apodoses because of phonetic similarities, all synonyms or other readings of the signs used to write this out could do so as well. Since connections were established throughout the entire universe, elements of heaven related to those of the earth, to parts of the human body, to the animal world, to minerals, plants, and so on. They did so in all dimensions of time: the past, the present, and the future. The logic of similitude, direct and through intermediaries, allowed for an endless production of new omens. The physical medium used to create them enabled and facilitated this mode of production. Scholars of divinatory texts wrote on clay tablets whose numbers were essentially unlimited. There was no restriction on the number of omens that could be formulated, and they were all equally valid.

The approach to law was more restrained, but followed the same principles. Far fewer legal paragraphs were strung together, and on the whole thematic associations alone structured their order: bodily parts, social hierarchies, numbers, etcetera. The restriction in the number of paragraphs may have been imposed by the limited scope of the law codes, that is, the actual conditions at the moment the king issued the laws. They had very immediate practical implications: they explored real legal behavior such as the imposition of penalties and the force of contractual obligations, and did so in the present time. While in the other two sciences all similitudes—semantic, visual, and phonetic—were explored, the law codes mostly limited themselves to the contents of terms when they developed their paradigms. A very simple substantive condition may have imposed restrictions on their size as well: laws were royal proclamations to be carved in stone, a valuable imported material whose physical size limited the number of paragraphs that could be recorded. But the reasoning of the codes was the same as in the other sciences, and the Babylonians explicitly equated the formulation of law paragraphs with that of omens. The law codes show that the rules of the Babylonian hermeneutic system applied in any field of knowledge.

Empiricism vs. Rationalism

The Stoics considered that all knowledge was acquired through the senses; it was by observation that the blank slate of the mind became inscribed. Many modern scholars claim that the Babylonians too were

empiricists at heart.⁶ In the opinion of these scholars, the Babylonians started out by collecting words in vocabulary lists when they recognized the items they designated in reality. They recorded the results of divination readings in omen statements. And they based the law paragraphs on actual court cases, removing the names of the parties involved and other details. Only after these foundations existed did they expand the lists through elaborations, regularly entering into the world of what we call the absurd: plows pulled by eight oxen in lexical lists, solar eclipses at midnight in omen series, and grain threshed by goats in law codes. Some modern scholars have interpreted this in a positive way as the birth of a scientific spirit that aimed to foresee all potentialities. But others see it as the main reason Babylonian science became “trapped”; to them, the ancient scholars became so absorbed with developing new and ridiculous options that they lost all sense of reality.⁷

The evidence that empirical observation led to the entries in the lists is so slim, however, that we can easily doubt it played a role at all. Those modern scholars who sought connections between law paragraphs and the hundreds of actually recorded cases have mostly drawn a blank. The historical omens at the heart of the argument that authentic observations were the basis of omen lists are so few in number and often so meaningless that they provide meager support for the theory. Even in the case of lexical texts, from the beginning of the genre we see that the creativity of the lists far surpassed what appeared in other writings and what the compilers observed in reality. Rather than searching for an elusive core of real entries derived from empirical scholarship in all these lists, is it not more logical to regard them as the products of written creativity, fully composed by scholars who set out to investigate language, divination, and law? This work was purely rational and based on concepts the ancient scholars intuitively knew to be true and which they expanded through logical deduction.

Even hard-core empiricists in Western European philosophy like David Hume agree that in certain scientific branches there are necessary truths that do not derive from observation. Mathematics stands out as a discipline in which this is the case. It was one of the premier sciences of the Babylonians, and when they taught it at an advanced level they showed little concern for empiricism. A typical example of a mathematical exercise text provides the length and depth of a trench and the amount of salary paid to the workmen who dug it before it asks the student to calculate its width. Although a problem like that is rooted in

real life, it has no practical applications at all.⁸ It forces the student to employ algebraic principles in an elaborate method, but the proof of the solution's validity is not based on empirical observation. The truth derives from the correct use of mathematics. Babylonian students were trained in mathematics in the same way that they learned writing and all the other sciences dependent on it. If they were asked to accept the truth of mathematical principles without observation, they could easily be expected to do so for other concepts as well.

That does not mean that the Babylonians, Assyrians, and others who consulted these scholarly writings never used their senses (one would not make this accusation against René Descartes either). The Babylonians are rightly famous for their powers of observation, as can be seen in the so-called astronomical diaries, a corpus of texts attested from 652 to 61 BC, but by far mostly dated after 330. They described astronomical phenomena on a daily basis, including the positions of the moon and planets, eclipses, solstices, and equinoxes, weather conditions, and non-celestial facts: the level of the Euphrates River, the prices of commodities like barley, dates, mustard, sesame, and wool, and some political events. Alexander's victory over Darius III at Gaugamela on October 1, 331 BC, for example, was recorded in them. These inspections were not random, however, but guided by concerns including those established in the omen lists on the basis on nonempirical research.⁹ Practitioners of extispicy, too, showed remarkable skills of observation, in their analyses of the sheep liver. They had perfect knowledge of what the organ looked like and of its potential deformities. Modern scholars can point out the exact location of the features the Babylonians identified, in their texts on actual livers (or photographs thereof). It is clear that the ancient haruspices had studied them very closely.¹⁰ But the creation of omens and the interpretation of the deformities was done when writing the extispicy series, and the features that were considered important in the written texts directed the diviners in what to look for in their inspections of the actual livers. The entire universe made up a diviner's field of study, a reality so vast that guidance was required in its scrutiny. The compendia told diviners what was ominous and what was not. I have argued that accountants, similarly, looked at the items in their charge with the classifications they had learned from lexical lists in mind. And in law one can suspect the paragraphs formulated in the royal codes as guiding the questions judges asked to make their decisions.¹¹ In all these cases, learned texts preceded observation. The users considered their con-

tents to be the truth, developed logically according to established principles. Because the texts had such long histories and were constantly being further extended, that logic was not always immediately apparent, and in the first millennium scholars wrote intricate commentaries to explain cruxes. But they did not doubt the truth of the statements they found in the texts; they explained how they were true. And just as in mathematics truth was established through the correct use of algebraic principles, in Babylonian hermeneutics it was established through correct reading.

Texts had supreme authority. Many derived that status from the fact that they were considered to be very old, a status Mesopotamian scribes increasingly acknowledged as time progressed. As the Hellenistic Babylonian scholar Berossos stated: certain writings dated from before the Flood and had survived that cataclysm because the god of wisdom had told Xisouthros, the Mesopotamian Noah, to bury them.¹² Authorship was very rarely acknowledged in ancient Mesopotamia, because texts were autonomous sources of knowledge and oftentimes grew in size as if on their own. Humans interpreted them, even tinkered with them by elaborating their contents, but they did not question them. Acquisition of knowledge was the result of the study of texts, an immense corpus of which had to be mastered. The modestly named “scribal craft,” *tupšarūtu* in Akkadian, at its highest level required familiarity with a vast literature of multiple genres. In the library of Assurbanipal, a fragmentary catalogue appears that lists collections of texts together with the names of scholars who probably were specialists in their study. It shows the remarkable range of the materials these men controlled. For example, one group of texts connected to a man called Aplâ included lexical lists and god lists, excerpts from the celestial omen series *Enūma Anu Enlil*, terrestrial omen series, proverbs, and apotropaic rituals. Some of his colleagues additionally mastered bilingual literary materials.¹³ I have mentioned the Babylonian scholar Marduk-šapik-zeri, who in a letter to King Esarhaddon claimed to know the texts of the lamentation chanter and the exorcist, as well as works of celestial, terrestrial, and physiognomic divination.¹⁴

The rules of textual comprehension were the basis for understanding reality. “What one knows is not nature, but texts.”¹⁵ To return to the *Babylonian Creation Myth* I described in chapter 1, one knew the powers of Marduk not by observing them in reality, but by analyzing the god’s fifty names, which contained all the necessary information. When scholars raised their head from the tablet and looked at the sky or into

the entrails of a sacrificial lamb, they saw text and read each feature as if it were a cuneiform sign in a written sentence. As when they read a text, the meaning of individual signs was not immediately apparent, because each sign had multiple values. True meaning only emerged within the context of the entire statement. The rules were clear: even if signs were multivalent, there was only one correct reading. From the first steps of their education the scribes were taught how to recognize that reading based on copying out what had been written before. Creative writing was not a skill taught in Babylonian schools; imitation was, so that the students could see how the signs acquired exact meanings within specific contexts.

Some Historical Perspective

The discussion in this book has been ahistorical so far, in that it has sought to formulate the underlying principles of Babylonian epistemology. These principles were essentially connected to the Babylonian cuneiform writing system, and seem to have survived as long as the script did, that is, some 3000 years. There must have been change over time, and the relationship between intellectuals and the source of their knowledge—the written text—is not likely to have remained static. The fact alone that the textual record expanded over time and that people with increasingly divergent cultural backgrounds engaged with it undoubtedly had effects and influenced the system. An account of Babylonian intellectual history remains to be written, and a full exploration of it would be out of place here. In what follows, I will focus on three moments that were important for this history and consider whether and how they affected the principles that I have pointed out here: the early second millennium in Babylonia and adjacent areas, later in that millennium across the entire Near East, and at the end of the first millennium, in the Babylonian heartland. They indeed show differences in the engagement with the scientific materials, but a remarkable persistence of the underlying principles.

The Early Second Millennium

In the early second millennium the inhabitants of Babylonia and its surroundings were subjected to almost incessant political and military struggles between the rulers of ancient city-states who had carved up the territory between themselves. Many players were involved. Those of Babylonia proper—the region of modern Iraq south of Baghdad—are

best known to us, but kingdoms in the adjacent Diyala River valley, the Middle Euphrates area, northern Mesopotamia, and western Iran also participated in the military conflicts. For 250 years, from 2000 to 1750, a sequence of urban dynasties fought for hegemony, a process that ended when Hammurabi of Babylon unified Babylonia in 1755 and reduced its neighbors' powers to such an extent that they no longer posed a threat. His victory was ephemeral, however, and fifteen years later the southern parts of Babylonia regained independence from his son Samsuiluna in a violent struggle that brought about the collapse of urban life. Many intellectuals fled to northern Babylonia, a region that remained politically stable and economically prosperous under Hammurabi's successors until about 1600, when the Hittites from Anatolia militarily terminated his dynasty. The entire 400-year period, traditionally called Old Babylonian in modern scholarship, was tumultuous, and has been very aptly coined the Era of Warring States.¹⁶ Still, despite these political circumstances, literate culture flourished. The written text was used in many areas of life—state bureaucracy, private enterprise, legal affairs, trade, and religious practices—not only in urban centers but also in villages. Practical literacy spread into many layers of society, and individuals far beyond the state and temple organizations were familiar with the concepts of textual understanding, at an elementary level at least, through the standard teaching techniques in use. This situation may have been the result of social changes and the growth of an urban bourgeoisie.¹⁷ The “democratization” of literacy happened in a multilingual world: some people may still have spoken Sumerian, although this is debated; others spoke Babylonian, probably with local dialectical characteristics; yet others the West Semitic Amorite; and smaller groups used languages such as Hurrian, Elamite, and Subarian. But the languages of writing were only two. Sumerian had dominated since the invention of the cuneiform script more than a thousand years earlier, while Babylonian (or more broadly, Akkadian) increased its prominence over the 400 years of this period. Although bilingualism in writing had existed before, it became an integral part of the culture only now, it seems, and it may have been one of the main triggers of change in the writings studied here.

As we have seen, in this period there were radical innovations in the lexical material.¹⁸ Instead of focusing on individual Sumerian words, newly developed lists analyzed cuneiform signs, syllables, words, grammatical forms, and phrases, over time increasingly in bilingual texts. A mass of evidence has survived, much of it from schools all over Baby-

lonia and beyond, and this material has enabled modern scholars to reconstruct the curriculum in detail. Students were systematically made aware of the multiple readings and meanings of cuneiform signs and Sumerian words by repeatedly copying out passages of established lexical and literary texts. In order to explore every element of writing in all its potential variations, scholars generated lengthy paradigms, and in this way they laid the basis for all subsequent Mesopotamian lexicography. Their work certainly made the intricacies of the cuneiform writing system, rooted in its Sumerian origins, clearer to non-Sumerian speakers.

The lexicographic revolution was part of much wider innovations in the written culture. Literary productivity boomed in Sumerian, Akkadian, and bilingual forms, which we have to see as three parallel literary idioms.¹⁹ Temples commissioned hymns to gods and palaces had authors compose a variety of writings to honor the ruler, including accounts of battles and building activity, hymns of praise, and law codes. An abundance of literature survives from this period. Within this intellectual context King Hammurabi formulated the most detailed ideas about law known from ancient Babylonia, creating a monument that would be respected for many centuries. He did so in the upstart scholarly language, Akkadian. Using a phraseology already established under his predecessors, he extended its principles of elaboration to create by far the longest consecutive text from early Babylonian history. Theoretically it could have been expanded much further, but its function as a royal inscription to be carved on stone imposed practical limitations. The code was a public sign of Hammurabi's wisdom, and later tradition acknowledged it as such. The philosopher-king applied the established methods in the search for truth to the area of justice.

The most consequential innovation in writing in the early second millennium was the appearance of omen series, an entirely new genre expressed exclusively in the Akkadian language. Omens were formulated like law paragraphs, and they were considered to be the equivalent of royal verdicts, but on a more encompassing level: they were the decisions of the gods, who directed the entire universe. The compilation of long lists of ominous signs on earth and in heaven, exploring them in minute detail by considering sequences of variants, and interpreting what they foretold, was original not in its format—that was also used in the law codes—but in its purview. We can explain the emergence of omen series as a result of the anxieties of the period, that is, the incessant wars and the loss of faith in the king as a god.²⁰ Perhaps

the omens even made the law code redundant. Kings had failed to provide the comfort and security they promised in the prologues of their codes, and the gods took over those responsibilities, expanding the scope of their verdicts to include all aspects of the universe. The omen series also reflect an intellectual break, one could perhaps say a “linguistic turn.” The universe was seen as a text and could be interpreted as if it was a piece of writing. Physical reality was a written representation of the truth. In that sense Babylonian thought can be seen to resemble Plato’s theory of the ideal types that lay behind the realities we observe. But while Plato and his teacher Socrates considered writing as even further removed from the truth than what we perceive through the senses, the Babylonians regarded it the key to understanding reality. The study of the written text surpassed the study of reality, and the tools for interpretation were available to all literate persons, as they had been at the core of their education. The new attitudes toward script that we see in early-second-millennium lexicography were paralleled by the new understanding of the universe, as shown in divination.

By all indications the Old Babylonian period was of crucial importance for the intellectual history of the Near East, with a set of innovations that laid the foundations for all that was to come for the next 1500 years. There was not only an enormous creativity but also a new perception about the path to wisdom: it lay in understanding the written word. It may seem astonishing that this Era of Warring States was a period of such productivity and breakthroughs, but such a situation was not unparalleled in history. Intellectuals in the competing city-states of archaic Greece and during the violent upheavals of late Zhou China (its Era of Warring States) also established new paradigms. But while we still know of and admire the people involved there, like Thales and Confucius, the Babylonian thinkers involved remain nameless to us. In Babylonia the texts take precedence over their creators.

The absence of known individuals to whom we can credit these innovations prevents us from locating where they happened, both geographically and within the societies involved. Our views of Babylonian literate culture are very much biased by the fact that the most abundant and earliest discovered sources derived from southern Babylonian cities, especially Nippur. As my brief histories of the three textual genres showed, it is clear now that many people elsewhere also worked with these texts, and for all we know they could have introduced important changes. Recent research has argued that scribes from Eshnunna pioneered new formal characteristics in everyday writing—for example,

tablet shapes and the selection of signs—that others later adopted.²¹ Scholars from Eshnunna, with their distinct cultural and linguistic backgrounds, could easily have instituted changes in the corpus of texts discussed here. The first laws in the Akkadian language were from that kingdom. Because they were less attached to Sumerian scholarly traditions, scholars outside Babylonia may have explored that language more in its relationship to Akkadian. It is probably best not to look for creativity in any one place, however. What strikes us is the wide geographical spread of people who participated in the intellectual tradition. And they did so at a time when their kings happily engaged in warfare against each other.

There is also an unanswered question about the social context in which the intellectuals worked. Old Babylonian schools were located in the residential areas of towns, but it is unclear where the teachers obtained financial support. Nor do we know whether they were at the forefront of textual creativity and interpretation. The palaces must have commissioned some work—the laws were issued by kings—but did they sponsor all of it? Did kings admire the work of lexicographers? Omen lists seem to have developed because of political concerns—insecurity and perhaps the disappearance of divine kinship—but did courts find their creators worthy of support? We do not know.

The Late Second Millennium

Our understanding of intellectual developments is severely impaired by the so-called Dark Age that hit the entire Near East in the mid-second millennium. In Babylonia the ancient system of city-states imploded and the urban infrastructure for literate creativity disappeared. At the same time, palaces throughout the Near East that had used Babylonian writing practices in the early second millennium stopped functioning, and as a result we have virtually no documentation from the period from 1600 to 1350. But people did continue to write out and develop the lexical and divinatory lists, as well as other genres of writing. When the textual record reappeared, its Old Babylonian genealogy was clear, and there must have been a continuous engagement with these materials, the evidence of which has eluded us so far. When the Dark Age lifted, there was an entirely new political landscape throughout the entire Near East. Babylonia had become a territorial kingdom covering the whole of Iraq south of Baghdad, and it was part of a system of similar states extending from western Iran to the Mediterranean and from the Black Sea to Egypt. Power was in the hands of royal courts that

were in constant contact through diplomatic correspondence written in the Babylonian language and using cuneiform script. Babylonian was the *lingua franca* of the Near East for at least 200 years. When Egypt's Ramesses II wrote a letter to the Hittite king Hattusili III, he did so in Babylonian, a language foreign to both.

Two features that had their precedents in the Old Babylonian period became very pronounced in the later second millennium, one involving the practices of writing itself, the other its use in a cosmopolitan setting. Ostensibly, these seem at odds with one another if one reads their explanations in modern scholarly literature, which usually looks at them individually. However, I consider them to be evidence of the same intellectual trends. The first feature relates to how one wrote. The polysemy of cuneiform signs allowed the users to render words in many different ways, including with single word-signs (logograms) or by spelling them out syllabically. In eighteenth-century Babylonian texts, such as, most famously, the Code of Hammurabi, the use of syllabic signs was very common, making them easy for us to read—Hammurabi's code is the first text taught to students today. But soon afterwards scribes increasingly used logographic signs, a trend that continued into the later second millennium and beyond. Instead of pursuing simplicity, they showed off their knowledge of esoteric sign values. In the view of many modern scholars, writing “degenerated,” it was unable to shed “its primitive and imperfect stage.” If we reject the idea that writing's function is merely to represent speech and accept the Babylonian concept that how one writes is as important as what one writes, we must see this development differently: the increased use of logograms gave scribes the ability to add meaning. They explored the potential of script to its fullest extent in a multilingual environment. Their concern was not the Babylonian language but cuneiform writing.²²

Moreover, the modern assertion that the move toward logograms was purposefully made in order to restrict knowledge to the initiated few is also dubious. The second development apparent in the later second millennium patently contradicts it: Babylonian literate culture became even more cosmopolitan that it had been before. At this time, every court in the Near East employed scribes whose command of the Babylonian language and script was sufficient to communicate in the *lingua franca*. Not all of them were equally skilled: letters written in the city-states of the Levant show many influences from the local vernaculars, which modern scholars usually interpret as a sign of a weak grasp of Babylonian. But in several cities intellectuals were very well versed

in Babylonian literate scholarship, including lexicography and divinatory writings, and there are indications that Babylonians traveled abroad to teach these disciplines. Clearly there was no reluctance to spread scholarship, a fact that casts serious doubt on the idea that its access was restricted.²³

The “international” impact of Babylonian scribal culture was not unprecedented. Already in the mid-third millennium, western Syrians at Ebla had adopted Babylonian scribal practices wholeheartedly and in the early second millennium people in northern Mesopotamia, Syria, and western Iran did the same. The situation was qualitatively different after the Dark Age of the mid-second millennium, however, when scholars from a much wider so-called periphery actively engaged with Babylonian materials, and to a greater extent than their predecessors. Evidence of literary and scholarly writing from Babylonia itself is remarkably limited in extent, while there are entire libraries from cities outside the region, including the Hittite capital Hattusas, the Syrian trade centers Emar and Ugarit, and the Assyrian capital Assur. Smaller corpora as well appear throughout the Near East, from Bahrain and western Iran to Egypt.²⁴ It is very possible that the so-called periphery was responsible for the preservation of the Late Old Babylonian traditions. The manuscripts found there in the later second millennium show close connections with those of the earlier period,²⁵ and there is no need to assume that they spread abroad once again after the Dark Age. Take the example of a solar eclipse omen tablet found at Hattusas. The manuscript is fully Old Babylonian in character, using spellings from that era, and by all indications the text it contains reached Hattusas in that period. The tablet—either the old item itself or a faithful reproduction of it—became the model for a number of later copies that adjusted its spellings to reflect local practices, and was the basis for a Hittite translation.²⁶ Although the majority of manuscripts excavated in the Hattusas libraries date to the so-called New Kingdom period of the Hittite state (1350–1180), there was a continuous scribal tradition there, with the preservation of texts from earlier centuries as far back as 1600.²⁷ Scribes in cities such as Hattusas may have been more important guardians of tradition than those in Babylonia. While eminent scribal centers in the latter region, like Nippur, were abandoned for centuries, some of those in the so-called periphery seem to have had constant occupation.²⁸

Irrespective of the ways in which these literate materials traveled through the Near East—and there were most certainly various paths of transmission—it is clear that local scholars did not just copy what they

received but adapted it in multiple ways. Modern scholarship, which sees the Babylonian core as the source of inspiration and creativity, tends to stress similarities with evidence found there in order to show direct contacts and cultural dependence.²⁹ However, the evidence shows clearly that people to whom the languages of Babylonian writings and their cultural setting were foreign intensively engaged with Babylonian materials, that they understood the underlying epistemological principles, and that they wanted to apply these within their local cultural contexts.

Let us take Hattusas as an example. Its scribes worked at the core of a powerful state whose territories incorporated people with a wide variety of linguistic and cultural backgrounds. Materials written in Hittite, Hattic, Luwian, Hurrian, and many other languages were preserved in official archives and libraries. In this respect the Hittites had a radically different attitude than the Babylonians, who stubbornly refused to write anything but Sumerian and Akkadian. On top of their own multilingual materials, the Hittites collected, studied, and adapted writings imported from Babylonia, or more accurately, that were part of the Babylonian cosmopolitan culture that extended across the entire Near East. Many different versions of the same texts circulated through the region, some very Babylonian in character, others with Assyrian, Hurrian, and other influences. It is clear that scribes at Hattusas preserved several of these traditions at the same time, with somewhat variant attitudes toward the different genres.³⁰ There exists a sizable corpus of lexical texts, preserved in different formats ranging from monolingual Sumerian lists to four entries in each syntagm—the divergent formats were sometimes used in various passages of the same series. The key local addition clearly was the Hittite or Hurrian translation column, which could only have been formulated by someone who knew those languages, but the texts also regularly added a column with syllabic spellings of the Sumerian logograms unknown in Babylonian sources. Many manuscripts existed of a series whose purpose it was to teach how to translate into Sumerian, a skill not needed at Hattusas unless scribes wanted to work creatively in that language. Some scribes even studied grammatical paradigms, which suggests that they wanted to master Sumerian in full. The scholars at Hattusas were entirely cognizant of the rules of Babylonian lexicography and had the ability to elaborate on very difficult texts.³¹

The manipulation of omen texts as a scholarly exercise at Hattusas is obvious. Babylonians and Hittites had entirely different divinatory

techniques and beliefs. The Hittites only wanted to know whether an omen was good or bad, and had no practical interest in the intricate nuances of Babylonian apodoses. More importantly, they were obsessed with the causes of bad luck, which they saw as the result of divine displeasure, and sought explanations of misfortunes. They queried the past rather than the future. They preferred bird augury and oracles as ways to communicate with the gods, yet they copied out and translated into Hittite series involving the sun and the moon, dreams, earthquakes, and other phenomena the Babylonians considered ominous, facing several difficulties when doing so. As an Indo-European language Hittite could not easily render many of the standard Babylonian expressions used in omens. The differences in the natural environments also caused confusion: high river floods were a blessing for agriculture in Babylonia, while they were destructive in Anatolia. The Babylonians indicated cardinal points with the names of four countries: Akkad (south), Elam (east), Amurru (west), and Subartu (north). The Hittites saw their own land of Hatti as Akkad's parallel, thus placing it between Elam and Amurru in an absurd geographical situation.³² The Babylonian omen series had no practical value to the Hittites; they were studied as works of scholarship.

Hittite scribes also engaged with Babylonian works of narrative literature, including the famous *Epic of Gilgamesh*. They rendered parts of the Babylonian text in two distinct versions, one using spellings regular in Babylonia, the other following the adaptations commonly used at Hattusas (modern scholars call it Boğazköy Akkadian). They also translated passages into Hurrian and into Hittite, but adapted the epic's contents. They ignored certain parts of the Babylonian version, focused on the hero's adventures in the western parts of the Near East, that is, in or near the Hittite state, and added elements unknown in Babylonia. For example, Gilgamesh, who in Babylonia was the son of King Lugalbanda and the goddess Ninsun, became the handiwork of a group of prominent deities from the Hittite pantheon, who gave him a spectacular physique.³³ The scribes of Hattusas, and of other so-called peripheral cities, were not just imitators with various levels of knowledge of the Babylonian source materials; they behaved as equals to their Babylonian colleagues, taking the same liberties with the texts, receiving and manipulating them through creative acts. We should actually question the designation "Babylonian" for these works. The editions conceived outside Babylonia were as integral to the materials as those done in Babylonia itself, and the latter are almost fully unknown to us. Literate

culture in the Near East at the time was cosmopolitan, a subject that requires further elaboration in another context. It remains a major challenge in the study of Near Eastern intellectual history to determine how this cosmopolitan creativity influenced the writings as we know them from first-millennium Babylonian sources.

One foreign country whose scholarship in the late second millennium was of unmistakable importance for the development of Babylonia's intellectual tradition was Assyria. That country's relationship to Babylonia had always been different from that of other areas. While Assyria and Babylonia were geographically clearly distinct, contacts between them were easy, and Babylonians had already established outposts there in the third millennium. More important in intellectual terms was the fact that people in the two regions spoke dialects of the same language, Akkadian, and shared religious ideas and the cults of certain gods. But Assyria had been a political and cultural "backwater" compared to Babylonia. Even though at times rulers had been very powerful and influential across the region—in the early second millennium, for example—the main political centers had been in Babylonia up to the initial stages of the international system that dominated the Near East after 1450. While Babylonia was a major player from the start, Assyria only acquired a leading status in the reign of Assur-uballit I (1363–1328), based on its military might. That king raided Babylon in revenge for the murder of his grandson, and placed a handpicked man on the throne. Assyria's political ascent had cultural repercussions: to be considered a major court it had to patronize Babylonian cosmopolitanism, as the others did. With Babylonia being so close and militarily weaker, it was easy for the Assyrians to import cultural artifacts wholesale from its centers of learning, including scholars, who taught the scribal arts in Assur.³⁴ Throughout the late second millennium Babylonia remained Assyria's source for scholarship and literature, and sometimes writings were obtained by force. In 1225 Tukulti-Ninurta I (r. 1243–1207), angered by Babylonian violations of a treaty, invaded the region and assumed kingship there. An epic commissioned to justify and celebrate the victory in high literary style makes clear that he saw scholarly writings and manuscripts in general as part of his gains. The passage, unfortunately poorly preserved, states:

Tablets of [	]
The corpus of scribal texts [	]
The corpus of exorcistic texts [	]

an order that became standard in first-millennium Babylonia, a work we know from the long colophon I translated before.⁴⁰ But the scribe from Assur refused to accept his changes and stood by the older version. Those are not the words of a copycat, but of someone confident in his own work.

The late-second-millennium Assyrian versions of lexical and divinatory lists must have had a great impact on later scholars in the region, whose works we know from first-millennium libraries at Huzurina, Kalhu, and especially Nineveh, although the absence of a continuous sequence of sources makes the details ambiguous. Babylonians were slow to acknowledge Assyrian contributions to their scholarship, however. While there were many occasions when Assyrian conquerors carried off Babylonian manuscripts, there is no evidence that Babylonians did the reverse. When Nabopolassar sacked Nineveh in 612 and systematically destroyed its palaces, he turned his back on Assurbanipal's massive project of collecting all scholarly and literary works of Babylonian culture. Assyrian originals seem to have influenced some later Babylonian sources, and, very curiously, a tablet from Assurbanipal's library turned up in a fourth-century private library at Uruk, but these are exceptional.⁴¹ It was only late in their history that the Babylonians came to accept an Assyrian among the great scholars of the past. A Seleucid-era list of scholars and their royal patrons, going back into antediluvian times, includes one Assyrian entry: Ahiqar, who worked in the court of King Esarhaddon. By this time the character of Ahiqar had become a major wisdom figure in Aramaic literature and the hero of a tale that placed him in seventh-century Assyria; the Aramaic sources must have inspired the Babylonians' admiration.⁴² Unfortunately, the lack of evidence, both from Assyria and from Babylonia between the late second millennium and the great libraries of the first millennium, prevents us from studying these questions in more detail.

To sum up the crucial factors in Babylonian intellectual history of the later second millennium, then, two aspects stand out. First, people throughout the Near East participated in its developments, opening up its interpretative practices to include languages other than Sumerian and Akkadian. They did so with the willing participation of Babylonian scholars, who traveled abroad to teach them. But people with many different cultural backgrounds contributed to the effort, which was thus truly cosmopolitan. Although palaces seem to have been the main supporters of this activity, they did not have a monopoly over it. Manuscripts of literary and scholarly writings appeared in private libraries as

well and it seems that involvement in the cosmopolitan literate culture was a way in which urban elites set themselves apart from the rest of the populations. It was a mark of success attainable by the select few—but those few were from all over the Near East.

Second, because people who spoke many different languages engaged with cuneiform writing, they increased its power as a key to wisdom and expanded the number of readings and interpretations of individual signs. Scribes were not concerned with rendering the Babylonian language in syllabic spelling, but explored the polysemy of logographic signs to enrich meaning in their texts. The use of the same script by scholars speaking and writing different vernaculars encouraged the separation of the study of the script from a specific language. Thus the situation was different from other examples of cosmopolitanism in world history. Scholars did not participate in intellectual exploration by using a common language, but by using a common script. The rules of interpretation were rooted in Babylonian scholarship, with its three idioms—Sumerian, Akkadian, and bilingual—but people outside Babylonia applied them to new vernaculars. Later Babylonians looked back upon these times as of utmost importance to their intellectual history, crediting their own ancestors alone with great accomplishments. This is not surprising, since by then Babylonian cosmopolitanism had ended. It was hard for them to fathom that foreigners had contributed to these intellectual developments; even Assyrians were thought to have been incapable of doing so. But just because they refused to acknowledge this international stage in their intellectual history, we should not do so as well.

The Late First Millennium

I pass over the period from the ninth to seventh centuries, when Assyria ruled the Near Eastern world and when its kings accumulated the greatest library of antiquity up to that time, in the capital city Nineveh. I turn to the last centuries of Babylonian culture, a time when it had to compete with other traditions. After Assyria disappeared from the map as a leading military power, the political center of the Near East reverted to its southern neighbor Babylonia, whose rulers used part of their wealth to support the religious institutions that promoted scholarship. But although its imperial reach extended throughout the Near East, Babylonia's written heritage no longer dominated. In Anatolia, Syria, and the Levant vernacular cultures had taken over. The relationship between the Babylonian tradition and these other cultures is com-

plex and I will not address it here, except by looking at the new entity that had developed on the edge of the Near Eastern world and would end up ruling that world politically: Greece. The intellectual debt of Greece to the Near East is an area of much research and controversy; I will focus here only on what happened after the Greeks under Alexander established direct connections with Babylonian culture.

But before I do, I want to recall that long before their conquest of the Near East the Greeks were indirectly or directly aware of Babylonian writings and sometimes imitated them. The results were very mixed, however, and some practices were long lasting, while others were short lived, as two examples will show.⁴³ The most elaborate replication of a Babylonian paradigm was in the field of law: the long code engraved around 450 BC on the agora's wall at Gortyn, a text in the tradition of Greek legal writings going back to the seventh century. These laws are fully Babylonian in character, not only in the case-by-case formulation of the precepts but also in their public display in monumental form. The formulation of written rules, although understandable only to a small part of the population, was an important step in the creation of urban civil communities.⁴⁴ That the emerging Greek city-states looked to the east for examples is not surprising, and it was possible for them to imitate the Babylonian phraseology even if legal practices differed. A pointillist approach listing cases with minor variants enabled the formulation of the principles of law as a whole regardless of language or script. For example:

If a person commits rape on the free man or the free woman, he shall pay one hundred staters;
and if on account of an *apetairos*, ten;
and if the slave on the free man or the free woman, he shall pay double;
and if the free man on a male serf or a female serf, five drachmas;
and if a male serf on a male serf or female serf; five staters.⁴⁵

Just as in the laws of Hammurabi, the penalty for a crime depended on the social status of the perpetrator and of the victim, and the list explores multiple combinations. The content of the Gortyn code may diverge from Ancient Near Eastern examples—some argue that it starts to include prescriptive legislation—but its form parallels what we find in Babylonia, Assyria, the Hebrew Bible, and among the Hittites.⁴⁶

Also important was the entextualization of the law, which led to a public awareness that established rules existed. The idea of doing so

first developed in third-millennium Babylonia, and many people in later world history found comfort in it. As Euripides had Theseus of Athens proclaim in his fifth-century play *Suppliant Women*: “when the laws are written, the poor man and the rich have equal rights.”⁴⁷ Thus is the area of law, Greece successfully adopted Babylonian practices.

In contrast, a less successful borrowing of Babylonian written representation appeared in the area of divination. There exists a unique sixth-century Greek text from Ephesus that imitates a Babylonian omen list and is embedded in an inscription regarding cultic law. It reads:

- If (the bird) flying from the right to the left disappears—it is favorable.
- If it raises its left wing and flies away and disappears—it is unfavorable.
- If (the bird) flying from the left to the right disappears on a strange course—it is unfavorable.
- If it raises its right wing and flies away and disappears—it is favorable.⁴⁸

The parallel with Babylonian omen lists and their right-left pattern is obvious. The Greeks were as concerned with signs of the gods as their eastern neighbors and even used similar techniques—extispicy, omens based on the flights of birds, derived from dreams, and so on—but their interpretative mechanisms were entirely different. The text quoted here was a unicum. It was a dead end. The Greeks could not exploit the techniques of Babylonian omen creation in full, because, writing in an alphabetic script, they could not establish the semantic, aural, and visual connections between the elements of omens that were at the basis on the Babylonian compendia. Greek divination was based on previous experience rather than the knowledge of scholarly writings. Diviners staged performances; they needed to convince their audience that their interpretation was correct, and they relied on charisma to do so, not on the authority of a text. Although there are references to divinatory books in Greece, those were not manuals but accounts of omens observed in the past, and their interpretations. Greek diviners learned their skills through apprenticeships and inspection in practice, not by reading books as their Babylonian colleagues did.⁴⁹ Nor were they interested in Babylonian writing on divination for its own sake, as an intellectual exercise; their attitude was very different from that of the Hittites in the second millennium, who likewise used non-Babylonian oracular practices but studied the Babylonian texts. The Hittites shared their writing

system with the Babylonians and explored its possibilities just as the Babylonians did. The Greeks did not; the context of the Ephesus inscription is too vague to explain the appearance of this isolated example of Babylonian-style omens in Greek. The format certainly did not catch on, and Greek divinatory scholarship followed a very different path.

These examples I just gave show the limits of the Greeks' ability to imitate the Near Eastern models: they were able to follow Near Eastern patterns in phrasing and presenting their laws, but they could not imitate Babylonian writings on divination. Once the Greeks had established the principles of their intellectual endeavors in a distinct format, it was easy for them to ignore what happened elsewhere. But when they, under the leadership of Alexander of Macedon, conquered Babylonia, the situation changed. Then they were in direct contact with local intellectuals and became responsible for them as they gained control over the temple institutions that enabled Babylonian scholarship. The Greek rulers decided not to interrupt this work, however incomprehensible it may have been to them. In this they continued the practices of the Achaemenid Persians, who had also patronized Babylonian scholars. When the Parthians took over of the region in the mid-second century BC they did the same as well. Political changes did not disrupt the traditional Babylonian sciences.

The study of Greek-Babylonian intellectual interactions in the Hellenistic period is critically hampered by a simple technological fact: the Greeks wrote on leather and papyrus, materials that did not survive the archaeological conditions of Babylonia. We know for certain that administrative records were written on them—textual references on clay tablets tell us so—but they have all disintegrated. We can imagine that copies of Greek scholarly and scientific writings circulated in Babylonia, but none are preserved. Beside very few and mostly brief Greek inscriptions,⁵⁰ writings of the period have thus survived solely in Babylonian cuneiform written on clay, which biases our view toward the local tradition. Any change due to the presence of Greeks has to be found in those writings.

Alexander's conquest of Babylonia did not transform the lives of the intellectual elites there. Benefiting from the long period of peace and economic prosperity under the Persians, they had flourished with the sponsorship of the temples, and had passed on their high literary skills from father to son for generations. We can recall Diodorus of Sicily's somewhat envious remark that the Chaldeans could spend their entire life philosophizing because of temple support.⁵¹ There is especially rich

evidence regarding the lives of these elites from the southern Babylonian city of Uruk where collections of scholarly tablets belonging to several families were excavated in their houses and in the main sanctuary. Without any noticeable impact from the Greek presence in the region, these men continued the practice of copying and emending series of terrestrial and celestial omens, literary texts, and cult laments, and they also created entirely new texts. Also at Babylon, the chief temple, the Esagil, financed the work of local scholars, including astronomers whose fame spread throughout the ancient world. It has been suggested that the Greeks promoted traditional Babylonian scholarship because its practitioners supported their rule; there certainly are no indications that they urged Babylonian scholars to change their ways.⁵² The scholars themselves emphasized their roots in the ancient Babylonian past by continuing the use of ancestral scribal names, claiming descent from great wise men who supposedly lived in the late second millennium, like Ekur-zakir and Sîn-lēqe-unninni.⁵³ Tradition trumped innovation. Any changes in celestial divination, such as horoscopes and mathematical astronomy, had started before the Greeks arrived. The textual evidence from Uruk and Babylon in Hellenistic times shows very little penetration of Greek ideas: some inhabitants took on Greek names in addition to their Babylonian ones, probably in order to advance their career opportunities in the new government structure, and some rare Greek words made their way into Babylonian writings.⁵⁴ The only “bilingual” materials are the so-called Graeco-Babyloniaca, which contain lexical and literary extracts with Sumerian or bilingual Sumerio-Babylonian versions on one side and Greek transliterations, not translations, on the other. They are few in number and likely postdate Greek rule over Babylon, but they do show an awareness of the other culture, probably from the side of Babylonian scholars.⁵⁵ The exact purpose of the Graeco-Babyloniaca remains a mystery; it is clear, however, that they did not alter the approach to Babylonian lexical scholarship. There also exist a small number of Aramaic texts written in Greek letters on clay tablets,⁵⁶ a strange mixture of scribal media and scripts, but these show very little interaction between cultures. We cannot say that Babylonians became Hellenized in their writing.

Did Greeks learn anything from traditional Babylonian scholarship? Arnaldo Momigliano famously asserted their resistance to learning foreign languages,⁵⁷ which may be an exaggeration. But it seems that any effort to teach Greeks about Babylonian culture had to come from the Babylonians. There are several suggestions that Babylonians reached

out to the Greeks and tried to influence them. The most eloquent translator of Babylonian ideas into Greek known to us, notable also because he was so exceptional, was Berossos, a priest of Bel-Marduk of Babylon, who probably was a child when Alexander conquered his city. He wrote a history of his country going back to primordial times in Greek and dedicated it to the Seleucid king Antiochus I (r. 281–261). The work, preserved only through excerpts from later historians with their own agendas, has Greek characteristics beyond its language: it adopted elements of Greek historical ethnography and shows the author's awareness of other Greek writings and elements of culture. But Berossos's history is essentially Babylonian and rooted in earlier historical and mythological writings, including the *Babylonian Creation Myth*, the Flood story, king lists, and chronicles. Berossos rendered these accessible to the foreign elites, and seemed to have taken the initiative to enlighten them on the greatness of his culture and especially its antiquity.⁵⁸ Whether the Greeks were responsive is not clear.

There are some isolated examples of Greeks adopting Babylonian cultural practices. Most famous is the building inscription King Antiochus I, Berossos's intended audience, commissioned when he restored Nabû's temple at Borsippa. It is written in very traditional Babylonian fashion on a cylinder using the standard expressions to commemorate such a royal project. There are some unusual aspects, such as the reference to the king as a Macedonian and the mention of his wife Stratonike, but it is clear that Antiochus intended to present himself as a good Babylonian king.⁵⁹ Babylonian chroniclers continued to list events that happened in the reigns of the Seleucid dynasts.⁶⁰ The astronomical diaries sometimes refer to actions of these kings as well, including a remarkable vignette about Antiochus III the Great (r. 222–187). In 188 he made an official visit to Babylon and Borsippa to present offerings to the great temples there. In Babylon he received a golden crown weighing 1000 shekels, and he was allowed to wear the purple robe of Nebuchadnezzar II, still kept in the treasury 370 years after that king's death.⁶¹ The fact that the diaries mention the occasion shows how unusual a royal visit to the ancient shrines was. There survives also a curious clay tablet inscribed with the names, in Greek letters, of the winners of—typically Greek—athletic games.⁶²

Hellenistic rulers are famed for their great libraries, the best known of which is Alexandria's library in Ptolemaic Egypt, which stands out as the prime depository of Greek literature and scholarship. The Seleucids also established a library at Antioch-on-the-Orontes in the late

third century, but no such endowments are known from Babylonia. The tradition of gathering together scholarship and literature went back a long time in the Near East, the Assyrian king Assurbanipal (r. 668–627) having been the most avid sponsor of such an enterprise. His library at Nineveh aimed to hold a complete record of Babylonian literate culture, as a small group of letters directing scholars to collect manuscripts shows.⁶³ Remarkably, these letters are preserved in Seleucid-era manuscripts only. The manuscripts must have been intended to communicate a message when they were written. The recent suggestion that they were apocryphal, or at least reworked after 300 BC, is very intriguing. According to this theory Babylonians wanted to remind their Greek rulers how valuable their writings were, and how the great kings in the past had collected them.⁶⁴ If true, the aim must have been to encourage Greek rulers to maintain and expand collections of traditional Babylonian writings, such as the one in the Esagil temple in Babylon, rather than to include such writings within Greek libraries. There is no reason to imagine that the Greeks objected to the existence of Babylonian libraries—Babylon’s temple library survived their rule—but nor is there any actual evidence that they promoted them. The message of these letters may have fallen on deaf ears.

The institutional sponsorship of scholars was one of the defining characteristics of Babylonian culture, and indicated attitudes very different from Classical Greece, where intellectuals had to fend for themselves and find fee-paying students. This changed, however, in the Hellenistic age, when courts took on the patronage of literature and scholarship. Egyptian Alexandria again stands out: in its house of the Muses, the Museion, researchers and writers worked in comfort, with generous salaries paid for by the king, and some have suggested that Babylonian tradition inspired the initiative.⁶⁵ Whether or not the Babylonian attitude toward research support caught on elsewhere in the Hellenistic world is hard to ascertain. Hellenism was as cosmopolitan as Babylonian culture had been a millennium earlier, if not more so, so it is possible that practices traveled far and wide and across political borders. But the impact remains hypothetical. The Hellenistic world did give Babylonian intellectuals the chance to go abroad. Berossos supposedly moved to the Greek island of Kos to set up a school of astronomy and astrology (although modern scholars debate whether or not this was true).⁶⁶ Diogenes of Babylon, who was actually from nearby Seleucia-on-the-Tigris, became head of the Stoic school in Athens in the mid-second century. He was especially praised for his work on gram-

mar, a subject in its infancy in the Greek world but long established in Babylonia; but the details on it are too vague to permit identification of connections between the two traditions. There must have been other Babylonians who benefited from the renewed internationalism of intellectual activity in the Hellenistic period.

Even if Seleucid rulers listened to pleas to appreciate and sustain Babylonian scholarship, that scholarship nevertheless gradually died out. The libraries of Uruk's scholars ended in the early third century, and in Babylon cuneiform written evidence became very slim in the mid-first century BC, although in both cities the script survived into the first century AD. The disappearance of scholarship was part of a general rejection of cuneiform for all sorts of writing, which asserts itself first in legal and administrative texts from the early third century. The events have been discussed repeatedly, with much speculation about the causes for this decline. Greek and, after 125 BC, Parthian rulers did not object to Babylonian traditions, although their support may have been lukewarm at best. Cults and temples continued to exist into the Sassanid period. Yet, the purview of the cuneiform script shrank, and in the last century of its existence it was limited to astronomy alone. Simultaneously, scholars expanded the use of the alphabet, even for writings on astronomy, and ultimately cuneiform became redundant.⁶⁷

The cultural interactions between Greeks and Babylonians were thus not very fruitful. We do not observe the development of hybridity in literate expression, although evidence for the merging of traditions appeared in the visual arts. The Greeks did not resist eastern literate influences elsewhere, as the case of Ptolemaic Egypt shows. Although there are many examples of the preservation of distinct earlier traditions there—Alexandria's library held the foremost collection of Classical Greek texts, and Ptolemaic temple hymns could be composed in the most conventional Egyptian style—there was also much evidence of hybridity. Perhaps the most eloquent and certainly the best-known example is the Rosetta stone, the key to the modern decipherment of Egyptian hieroglyphs. Its inscription celebrating the elevation of King Ptolemy V to "manifest god" (Epiphanes) in 196 BC is in three languages and scripts: time-honored Middle Egyptian, late Egyptian Demotic, and Greek. Such multilingual inscriptions including Greek are rare in Egypt, but nonexistent in the contemporary Babylonia. There was great creativity in Demotic, the literary and scholarly Egyptian dialect of the time, which does show Greek influences in choice of themes and ideas. Conversely, Greek-writing authors started to compose hymns

in honor of Egyptian deities, especially Isis. And the most radical Greek influence on Egyptian literate culture was the development of an alphabetic script to write the Egyptian dialect Coptic, which borrowed Greek letters and added a set derived from Demotic to render its unique phonemes.⁶⁸ Greek presence in Egypt was much more lasting than in Babylonia; the Ptolemaic dynasty survived for 300 years, and it was replaced by Romans steeped in Greek culture, while the Seleucids lost Babylonia to Iranian Parthians after only 190 years (331–141 BC), and many of the hybrid features I mentioned for Egypt were visible only after several centuries. But still, the contrast between Egypt and Babylonia is stark. Even before Alexander's conquest of the country, Egypt, which had been inward-looking for much of its history, eventually had an enormous cultural impact throughout the Mediterranean, and the Greeks credited it for many accomplishments that we know actually originated in the Near East. Aristotle, for example, claimed that the Egyptians invented mathematics,⁶⁹ a startling assertion when we compare their limited contributions to that science with what the Babylonians accomplished. In contrast to Egypt's, Babylonia's literate culture, which numerous people had adopted in the past, did not manage to integrate itself into the Hellenistic world. Using the vocabulary Vlassopoulos recently introduced in the study of Greek interactions with the surrounding cultures, Egypt actively participated in Hellenistic globalization, while Babylonia at best glocalized some of its characteristics.⁷⁰ This is not to say that no Babylonian elements survived or influenced Greek and Classical cultures in general. There are many examples, all scholars agree, even if they differ on what to include in the list.⁷¹ But Babylonian scholarship lost its creativity; and however great its legacy may have been, it disappeared as a dominant mode of investigating the world. A new paradigm arose in the last centuries of the first millennium BC.

To sum up this final era of Babylonian intellectual history, then, it is perhaps easiest to say that it hit a wall of incomprehension. When Greeks developed their scholarly practices on the periphery of the age-old Near Eastern cultural world, they may have tried to borrow from it, but they could do so only superficially. They could adopt ideas on how to formulate laws and how to exhibit them, and they could take over elements from tales about the universe's creation. But they could not use the essential structures of Babylonia's scientific exploration because they did not know its script. Thus they created with great brilliance another epistemology that did not have the written word at its center. When military successes gave the Greeks political dominance over the

Near East, they allowed the Babylonians to continue their work in the traditional vein, but also presented them with an alternative system of scholarship. Some, like Berossos, seem to have taken them up on it, but even they could not render the Babylonian approach to scholarship in Greek writing. The Graeco-Babyloniaca provided merely a phonetic rendering of elements of Babylonian writing. Literate hybridity was impossible at a deep intellectual level, and over time the new Hellenistic cosmopolitan world may have given Babylonians the opportunity to participate in its intellectual developments, but at the expense of abandoning their own traditions.

Babylonian scholarship was the study of texts, texts that had millennia-long histories and whose authority was much greater than that of the many scholars who tinkered with them in their process of interpretation. But humans were crucial actors in the intellectual work, and naturally their backgrounds and abilities played a role in how they approached the task. We have seen that the interpreters' challenge was to explore the polysemy of the written sign by establishing similitudes. In two moments of the history I have described there was a great expansion of the possibilities because new comparanda were introduced. In the early second millennium, lexicography changed when Sumerian entries were confronted with the Akkadian language, picking Sumerian words apart into elements that each had new equivalents. The range of similitudes grew enormously. At the same time, we see in the writing practices of the period a closer rapprochement between language and writing and the extensive use of syllables to express Akkadian sentences. This attitude changed in the later second millennium, when scholars with a wide range of linguistic and cultural backgrounds engaged with the Babylonian materials. By necessity, perhaps, the distance between script and language had to be reaffirmed. Scholars from Hattusas, Emar, and Susa were not studying Babylonia's language but its writing. Thus the emphasis returned to word-signs and their multiple meanings, which were again expanded because they now had resemblances derived from Hittite, Hurrian, Ugaritic, and other languages. At the same time, the use of the methods of lexicography in other sciences like divination exposed these fields of study to further elaboration as well. Not only the new linguistic settings but also the varied cultural settings added further possibilities of interpretation. Perhaps the proliferation of material became too great, and at the end of the millennium scholars like Esagil-kin-apli had to restore order, removing what he called "contradictory traditions." Scholarship flour-

ished in the first millennium in Assyria and Babylonia under royal patronage that continued despite repeated regime changes. But when the Greeks, with their own rich intellectual traditions, encountered that scholarship, they failed to grasp the Babylonian methodologies because they did not comprehend the radical importance of writing in its expression. One can transliterate the Sumerian and Akkadian columns of a lexical list into Greek characters, but that adds no meaning at all. Divinatory sciences continued for several more centuries in Babylonia, but the rejection of cuneiform writing in every other aspect of life made the use of the interpretative models rooted in script increasingly esoteric, until they too disappeared.

This brief survey of three moments in Babylonian intellectual history clearly shows its own shortcomings—much more could and should be said, but that is work for the future. It also shows, in my opinion at least, that while the moments we can investigate are but brief glimpses into a very long history, they reveal an underlying continuity despite the differences we observe between them. Certain principles remained constant for three millennia and more, and these made the unique, the autonomous, character of Babylonian intellectual life. To these, I will turn next.

CHAPTER 9

The Conceptual Autonomy of Babylonian Epistemology

The historical survey in the previous chapter, however rudimentary it may have been, exposes some essential aspects of Babylonian literate culture: it survived for a very long time and had an enormous impact on people with a multitude of cultural and linguistic backgrounds. Although it was the creation of the Babylonian heartland and scholars there worked with it the longest, others outside that region actively participated in its preservation and elaboration. Babylonian literate culture was cosmopolitan, and at times, for example in the mid-second millennium non-Babylonians may have been the guardians of its traditions. The fact that it was possible to apply Babylonian scholarly approaches to various languages with divergent linguistic characters disproves the very commonly held supposition that the individuality of Babylonia's culture was rooted in its language. This idea was the tenet of one of the foundational texts of ancient Mesopotamian studies, often cited even if rarely for its core message. It was wrong in its focus on language; I will argue here that we should look at the Babylonian use of script instead.

Babylonian Epistemology and Language

In 1925, the 35-year-old Benno Landsberger, who would become one of the foremost Assyriologists of the twentieth century, entitled his inaugural speech as professor extraordinary at the University of Leipzig *Die Eigenbegrifflichkeit der Babylonischen Welt*, now commonly translated into English as *The Conceptual Autonomy of the Babylonian World*.¹ The lecture was a manifesto making two points: Babylonian culture should be studied for its own merits, and scholars today can only understand the Babylonians' *Weltanschauung* through their language. Speaking after

the Bible-Babel controversy that had almost killed off the new discipline of Assyriology in the early twentieth century because of its claim that the Hebrew Bible merely parroted Babylonian concepts, Landsberger called for an autonomous analysis of Babylonian culture without comparison to any other. Later scholars have invoked this message more narrowly as a plea to disentangle Assyriology from biblical studies, and perhaps have honored it more in the breach than in the observance.²

More important to the lecture was the second idea, however, which aimed to provide a method of analysis of ancient Babylonian culture untainted by comparison. Landsberger advocated the study of the characteristics of the language in order to recover the inner form of Babylonian thought. As examples of his approach he sketched how verbal tenses revealed concepts of time and how an analysis of vocabulary gave a direct means of access to the mind-set and worldview of the Babylonian people who used it. Although he never elaborated on these ideas in later publications, they stayed with him for the rest of his life. In an unpublished lecture he gave in 1965, a few years before his death, he still said—using a very Socratic metaphor of ascent toward knowledge—that, “between external understanding and what is called penetration there is an ascending scale of degrees of comprehension, until you reach the *Eigenbegrifflichkeit*, and have the happy feeling that the sentence or even the word is the microcosmos that reflects the macrocosmos of this over-rich culture, with its permanence and change.”³ His work on lexicography, often mentioned in this book, was thus tacitly inspired by the goal to comprehend the Babylonian worldview.

Landsberger’s student Wolfram von Soden (1908–96), who almost single-handedly produced a comprehensive dictionary of the Akkadian language, was more candid about his adherence to this ideal. Throughout his career he published a sequence of short monographs to argue that the nature of a people’s language molds its thoughts.⁴ Like Landsberger, he stated that he did not have time to elaborate the theory in full and that he could only outline brief points, but his message was explicit. More strongly than his teacher, von Soden maintained that vocabulary shaped the mind; for example, the absence of abstract nouns in Akkadian resulted in the lack of abstract thought. Likewise, to him the nonexistence of such words as “freedom” indicated that these concepts did not exist.⁵

Although scholars of ancient Mesopotamia rarely refer to Landsberger’s suggested methodology explicitly, many agree that there is an inherent relationship between language and thought.⁶ The approach is

very common in scholarship on other cultures as well. Benno Landsberger did not write in a vacuum, nor were his ideas anomalous in the twentieth century. He quoted Wilhelm von Humboldt in his lecture, and he must have been aware that the link between language and *Volksgeist* had been popular in Germany since Johann Gottfried von Herder in the eighteenth century. As a student at the University of Leipzig he may have been in contact with several scholars there who promoted such ideas. The theory that language and cognitive processes are crucially related became codified in the English-speaking world through the influential writings of Edward Sapir and of Benjamin Lee Whorf. Sapir stated, for example, that “human beings . . . are very much at the mercy of the particular language which has become the medium of expression for their society.”⁷ Despite repeated debunking, so-called Whorfian linguistic determinism keeps resurfacing, probably because our classification of peoples and cultures in world history is still so much based on the languages they spoke and speak.

Whether or not linguistic determinism applies in general, the Babylonian world presents a special challenge to it. Babylonia’s literate culture was fundamentally bilingual, and the bilingualism did not just involve two cognate languages but radically dissimilar ones: the linguistic isolate Sumerian and Semitic Akkadian. So how did people deal with the two distinct mind-sets that these languages inspired? Landsberger and von Soden were well aware of the problem, but more or less ignored it. Landsberger briefly stated that the Babylonians recognized and adopted the Sumerians’ superior sense of order—visible in their agglutinative language’s facility to combine words—but kept this sense of order at a distance and did not let it interfere with the Semitic perspectives on the world. Von Soden at great length argued that Sumerian practices shackled the Babylonian mind and imposed a will to order on it. But, he insisted, the Babylonian mind had much vitality and enabled great creativity. His theory ran into deeper trouble when he had to acknowledge that the Hittites also showed an inability to formulate abstract concepts. He believed that speakers of Indo-European languages displayed the highest level of human cognition in world history, and why would the Hittites have failed to demonstrate this superiority? He explained their inability to go beyond Babylonian perceptions of the world by a lack of time: Hittite culture only existed for 400 years and did not manage to free itself from the limitations the Babylonian scholarly practices it had borrowed imposed on it.⁸ These mental gymnastics show how weak the idea that the Babylonians’ language shaped their

intellectual development is. The theory fails in every respect, from the detail—Landsberger’s deductions about the sense of time from the Babylonian language’s tenses⁹—to its overall scholarly context—linguistic determinism.¹⁰ We need to look for the individuality of Babylonian intellectual history in another area than language.

Babylonian Epistemology and Writing

Let us pronounce his fifty names,
That his ways shall (thereby) be manifest, his deeds likewise.¹¹

With this invocation the gods in the *Babylonian Creation Myth* introduced the long review of their new king’s powers and abilities. They gave Marduk fifty names, every single one of them elucidating how he directed a part of the universe. But, as we saw at the start of this book, the true significance of a name was only clear when it was read: each of the cuneiform signs used to record it had multiple meanings, and together they revealed all the nuances contained within the name. This was the key to knowledge for a literate ancient Babylonian. Only the written word held all information, and reading it correctly and in all its aspects was the Babylonian philosopher’s task. That is why gods *wrote* messages to humans using the universe as their writing tablet. That is why kings *inscribed* laws onto stone monuments in order to communicate truth to their subjects. Writing was not imitative of thought and secondary to the presentation of knowledge, it was central to it; it created knowledge by adding unsuspected levels and nuances. Thus the Babylonians needed a grammatology rather than a semiology to understand truth: the written sign was not the signifier of something else, it shaped its own meaning.

A key characteristic of the written sign in the cuneiform scripts of the Babylonians and other peoples of the ancient Near East was its multiplicity, its instability. Even in its most basic uses it was polyvalent: it could be an entire word or a syllable; it had many phonetic values; it could indicate different things. Its proper meaning depended on the sequence of signs in which it appeared, each one of which was unstable until the entire text was read. The beauty of the system was that for writings of high culture and special importance the options could be multiplied, adding new levels of understanding and extra nuances. This process was facilitated and encouraged by the use of lists, the essential form of Babylonian scholarly writing. Lists usually do not provide much

intellectual excitement. We encounter them daily in mundane circumstances, oftentimes as a reminder of less than pleasant things. But the format has been used throughout world history with great creative effect; this may explain the recent resurgence of interest in the list. In 2009 Umberto Eco organized an exhibit at the Louvre museum whose lavish catalog, the *Infinity of Lists*, presented numerous examples from Homer to Joyce.¹² Around the same time, the French author and publisher Charles Dantzig even promised to explain the world in 800 lists in his *Encyclopédie capricieuse du tout et du rien* (which did not exactly stick to the list format with much rigor) and gained critical acclaim. Lists can be environments in which to create, and they were exploited as such from the start of western literature. When Homer enumerated the Achaean allies sailing against Troy in his *Catalogue of Ships*, he did so as a poet, not as an accountant.

The list format is probably universal, but the Babylonians are the ones who explored its creative potential to the fullest extent. From the moment they invented script they used lists as the chief format of expression. The first accountants of late-fourth-millennium Uruk stuck rigorously to it to record assets and expenses, and nearly until the dying days of cuneiform writing, administrative lists numerically dominated the record. Babylonia was no different from any other bureaucratic society in that respect.

Lists were also a standard format in Babylonia's creative writing. I have mentioned before the enumeration of the god Ninurta's weaponry, which compares well with Rabelais's catalogue of the Corinthian armaments.¹³ Other examples are easily found, including what has been called *ubi sunt* poems. Just as François Villon in fifteenth-century France asked about the whereabouts of the "Ladies of Yore," a Syrian poet 3000 years earlier in a drinking song wondered what happened to great kings of the past:

Where is king Alulu, who reigned for 36,000 years?
 Where is king Etana, who went up to heaven?
 Where is Gilgamesh, who sought life like Ziusudra?
 Where is Huwawa, who was seized and knocked to the
 ground(?)?
 Where is Enkidu, who [showed] forth strength in the land?
 Where is Bazi, where is Zizi?
 Where are the great kings of former days till now?¹⁴

But the Babylonians took the format a step further. The list was not just a device of fictional literary creativity, it was the foundation of intellectual creativity in general. Everything could be and was explored in lists, using a methodology that was fully coherent within the list structure. Details were altered, specifications added, and the polysemy of the elements used to write them down was investigated in all its possibilities. The Babylonians did not create order in the universe by investigating its component parts; they created order in lists and applied the results to the universe. The text preceded reality. It had a primary status. Moreover, lists generated entries according to their internal principles and allowed for an almost unbounded creativity. They functioned in the same reality as the world outside them, naturally, but they were not limited by the parameters of that reality. In lexicography, written words were invented that were meaningless outside the list but completely valid within its structure. In divination, occurrences were explored that were physically impossible but again wholly meaningful within their list context. In law, the list-making behavior may have been more sober but the same underlying principles governed, and entries were created within the codes according to their internal logic. Each statement in a list was like a cuneiform sign within a sentence: its meaning depended on the entries surrounding it, and it was unstable until the entire list was read. After this was accomplished, the Babylonian scholar turned to reality to observe what had been established in the list.

The primacy of the Babylonian scholarly text also explains its instability. A text was never finished, its interpretation was never complete. Scholarship did not, as is often claimed, stand still; it continued by exploring existing writings further. Manuscripts show constant additions and subtractions; and although modern scholars often seek to reconstruct an authoritative canonical format, they realize it is a chimera. Individual entries had meaning, but their importance lay primarily in being building blocks of a whole. They needed to be compared and contrasted with those that preceded and followed: the readings *tu* and *umuš* for the sign TUG₂, ominous marks on the left and right sides, injuries to masters and to slaves. From the moment a few lines, even one pair only, were written down, the whole system was set in motion. The mathematical concept of self-similarity applies to the Babylonian list: each segment has the same shape, and put together they build the same shape, however many entries are added. The principle of unbounded creativity, rather than the written outcome of such creativity, was important: mean-

ing could always be explored further. A Babylonian scholar could make that point in a two-line quotation as well as in a compendium with thousands of entries. It was this kind of creative use of writing that is distinctly Babylonian. Statements were never elaborated to such an extent that one could no longer go further, but even in their briefest form they revealed the underlying principles of reasoning.

The volatility of scholarly writings tends to startle, and scholars who have devoted their careers to the study of the ancient Babylonians have often condemned it. Wolfram von Soden, who coined the phrase *Listenwissenschaft*, that is, science expressed in list form, was dismayed by their lack of adherence to the scientific standards he knew and by the absence of a refinement of the system in the millennia-long history of its use.¹⁵ More recent critics have been even more disapproving. They have derided the lists' logic as "additive and aggregative rather than subordinative and analytic," and indicative of a "lukewarm mind." They have accused Babylonian science of lacking "the ability to formulate general principles or abstract categories. . . . It could only proceed horizontally by cumulating examples." Even more, they have considered the ancients as stuck in an "automatism" that generated meaningless "pseudo-science."¹⁶ Those are harsh words of a kind historians of science rarely employ when discussing their subject, and they fail to grasp the principles that lie behind Babylonian scholarship. That scholarship recognized order based on the written word and the way in which it could be manipulated. The system was rigorously logical following two established creative principles. The first rule was that concepts could be refined by adding qualifications: sheep, male sheep, white male sheep, three-year-old white male sheep, . . . According to the second rule, ideas were explored in sequences of concrete options: injury to the nose, the eye, the ear, the face, the fingers, . . . Here the rule of opposition was especially common: a sign appeared on the right and on the left, on the top and on the bottom, to a man and to a woman, . . . These principles were straightforward, and they were applied in the context of writing, which logically permitted the consideration of a solar eclipse at midnight or of a goat threshing grain.

The criticism of Babylonian writings as pseudo-science is rooted in a cultural prejudice that sees the system of scientific presentation dominant today as the superior, if not the only truthful, one. The scholars I quoted essentially call for taxonomies, hierarchies, genealogies, and other classifications. Those seem perhaps natural and universal, but they are not so. Late-twentieth-century scholarship has begun to criti-

cize what the philosopher-psychoanalyst duo Deleuze and Guattari called the “arborescent” structure. The genealogical tree is neither the only nor the superior form of scientific representation. In its place Deleuze and Guattari put forward the “rhizome”—a presentation of knowledge that resembles the roots of certain plants, growing horizontally and able to expand without limits. It has no core, no dialectics, no hierarchy, but each point is connected to all others and is equally important. It is a semiotic chain agglomerating very diverse acts.¹⁷ A perhaps intuitive resistance to such an alternative model may soon fade when we consider how it structures knowledge on the internet, the scholarly resource on which we now so much depend. Google searches and the like may be based on algorithms, but the lists they produce fail to show clear taxonomies or hierarchies to us.

We have to remember that the “arborescent” model of scientific representation that dominates today is a metaphor, chosen from among alternatives. All scholars face the challenge of how to communicate their data, and the choice is not always obvious. Charles Darwin’s famous genealogical tree of the evolution of species can easily be judged the only conceivable one he could have used to represent the complexities of natural history. But from his notebooks we know that he considered other options as well. He contemplated the use of the coral metaphor to show his explanatory model: not rigorously unilinear and hierarchical, but open to addition and aggregation in every direction. For a while he tried to visualize the forces of evolution using the structure of a piece of coral rather than that of a tree rising up with spreading branches. The most influential genealogical tree of nineteenth-century scholarship would not have existed had he stuck to his original idea.¹⁸ The Babylonians would have grasped the coral metaphor immediately, as it resembles their lists as a representation of knowledge, with all its potential for change. Parts can be added and subtracted at any point; they seamlessly relate to all other parts of the structure. There are many more points of contact between the individual elements than in a taxonomy, each element having multiple resemblances. The overall structure of the list may look like a labyrinth, but all connections have a proper rationale. Where we may see chaos, the Babylonians saw order.

To be convincing, the Babylonian lists, like any other metaphor of scientific representation, required adherence to rules of logic. This they did with remarkable consistency, not only in a massive textual record but also over an enormous length of time. The jarring element of Baby-

lonian scholarship does not lie in its presentation but in what it presents: not realia but the written word. The study of the written word opened up exploration into realms otherwise unimaginable. Writing preceded reality. The list was the perfect environment to study the written word by looking for similitudes. It is at first confusing that the resemblances considered pertain to all of its aspects—meaning, sound, and shape. But once we get used to this approach, it makes perfect sense. It is there that we have to look for the Babylonians' conceptual autonomy and the key to their philosophy.

Notes

CHAPTER 1. AT THE TIME OF CREATION

1. For example, Cooper 2003.
2. Burkert 2008.
3. Walcot 1956 and many others.
4. Lambert (1985) objected on philological grounds to this interpretation proposed by Jacobsen (1976: 168), but it is so suitable for the southern Babylonian environment that I prefer it to his suggestion of Laḫmu and Laḫamu as indeterminate creatures.
5. For an excellent translation of the myth, see Foster 2005: 436–86. The passages quoted here are tablet 5: 1–4 (Foster 2005: 463) and tablet 6: 8 (Foster 2005: 469). They, and all other passages from that book, are quoted by permission of the author.
6. For example, Lambert (2008) does not mention this part of the myth at all, although he gives a detailed paraphrase of the rest of the text, while Dalley (1989: 230) states that the final two tablets are “not essential to the main work.”
7. Frankfort et al. 1949: 12. An earlier version of the book, published by the University of Chicago Press in 1946, used the title *The Intellectual Adventure of Ancient Man*, omitting the catchy *Before Philosophy*. It also contained a chapter on the Hebrews not reprinted in Penguin’s 1949 edition.
8. Hegel 1995: 88 (based on lectures given in the 1820s).
9. For literacy among women in ancient Mesopotamia, see Lion 2011.
10. Bottéro 1977. Bottéro 1992: 87–102 provides a synopsis for non-Assyriologists; see also the recent summary, Frahm 2011: 114–16.
11. Tablet 7: 91–92, translation from Foster 2005: 481. Bottéro 1977: 9 analyzes this passage.
12. In recent years scholars of ancient Babylonia, especially Wilcke (2000) and Charpin (2010a: 53–65), have started to argue for much higher rates of literacy than was previously imagined, but they do not differentiate between levels of skill, which Harris (1989), for example, discussed for Classical antiquity. Veldhuis (2011) considered such ideas for Mesopotamia, and distinguished between functional, technical, and scholarly literacy. The latter was clearly needed in the type of hermeneutic analysis discussed here. See also Michalowski (2012) for an account of various levels of literacy in Mesopotamia.
13. *Timaeus* 38d, translation from Waterfield 2008: 26.

14. *Theaetetus* 202c–206b, Cornford 2003: 146–54.
15. Maul 2013: 16.
16. See Seminara 2001: 460–66 for a survey.
17. Sjöberg 1975: 142–43.
18. For Gilgamesh, see George 2003: 7–17, for Adapa, Cavigneaux 2014.
19. George 2003: 726–77.
20. Vanstiphout 2004: 65. In an earlier article (1998: 141) he used the more prosaic “bilingual,” also found in Klein 2000: 567–68 and note 26. The only in-depth study of Mesopotamian bilingualism is the short monograph, von Soden 1960. He connected the languages to separate ethnic identities and saw culture clashes in the merger of two traditions. Some scholars today still see distinct Sumerian and Akkadian worldviews or find more specific differences in behavior, but this approach is much contested (see Seminara 2001: 509–19 for a survey). While I disagree with the idea that we can distinguish between Sumerian and Akkadian ethnicities, the issue is irrelevant to me here, as I want to address Babylonian literate culture as a unified bilingual one, irrespective of how that union materialized. Cooper 1993 and Hallo 1996 provide accessible surveys of bilingual writings in ancient Mesopotamia and its periphery. Vanstiphout 1998 describes the essential bilingualism of Mesopotamian writings very pointedly.
21. Van De Mieroop in press A, based on writings by Sheldon Pollock on the Sanskrit cosmopolis, such as 1996 and 2006.
22. Charpin (2010a) asserts the primacy of the oral over the written, in contradiction to his proposal of a high literacy rate in ancient Mesopotamia. Laessøe 1953 studied the importance of oral tradition in Mesopotamia explicitly, but his conclusion that the written was held in much higher regard than the oral seems to have been mostly ignored. I use several of his arguments here. Afanasjeva 1974 uses more of an evolutionary approach and rejects the common assumption that written literature is a late phenomenon in Mesopotamia. Jacobsen 1982 also sees oral poetry as no longer practiced in court circles by the end of the third millennium. Vogelzang and Vanstiphout 1992 contains several contributions that challenge the oral assumption; see especially those by J. Cooper and P. Michalowski. Foster (2005: 45) points out that there are no indications of an independent oral phase or tradition for Akkadian literature.
23. Foster 2007: 89.
24. I refer here to Goody 1987. For Islamic practices, see Schoeler 2009. Many historical disciplines today seem to reject the idea that written compositions had oral prehistories; see, for Sanskrit South Asia and medieval Europe, Pollock 2006: 440–42.
25. Hunger 1968: 134 no. 486. For other references to “the mouth of a scholar,” see Roth 2010: 114; the expression appears only very rarely outside tablet colophons (Frahm 2011: 45).
26. De Breucker 2014: F4b. In parentheses I provide the Babylonian equivalents for Berossos’s Greek names.
27. Tablet 1: 8–10, George 2003: 539.
28. Sjöberg 1972, Foster 2005: 1023.

29. Ambos & Schmidt-Colinet 2006–8.
30. Goody 1987: 281.
31. Black et al. 2004: xlvi–xlix. Delnero 2012 studies the issue on the basis of scribal errors in the manuscripts and concludes students must have worked from memory. But Scheucher 2012 points out that, in the case of Hattusas at least, we cannot ascertain whether mistakes in school exercises were the result of mishearing or misreading.
32. See Tinney 1998 for tablets containing the master’s original and student copies, and Buccellati 1993 for the copying of monumental inscriptions. Note also Michalowski 2011: 52–53 for arguments against the use of oral dictation to train students.
33. Civil 1985: 71–72. For the lists the student mentions, see chapter 2 here.
34. Reynolds 2003: no. 204. Passages in square brackets are restored by the modern editor, while words in italics indicate uncertain translations. The words in parentheses are added in the English translation to clarify the contents.
35. After Sjöberg 1972: 126.
36. I list only a few studies here: Foster 1991, Michalowski 1996, Glassner 2002, and Charpin 2010a: 179–81.
37. Barthes 1977: 142–48; Foucault 1979.
38. Foster 1991: 32.
39. Lambert 1962. Unfortunately the state of preservation of the text is poor, and many passages are restored (indicated by square brackets in the excerpts I quote).
40. Foster 2005: 910. The first line of the poem is its ancient title. The passage in the *Catalogue* is heavily restored on the basis of the poem, and there is thus circular reasoning in my statement here. The restoration seems reliable, however.
41. See Hunger 1968: 8–11 for the information on owners and scribes in colophons. His no. 101 is an example of an owner who wrote the tablet himself, no. 102 of a son writing for his father.
42. Van De Mieroop 1997: 108–10.
43. Lambert 1957. Beaulieu 2000 shows how people at Uruk claiming descent from Šîn-lēqe-unninni were mostly scribes and lamentation chanters.
44. Reade 1998–2001: 421–27.
45. See Hunger 1968: nos. 317–45 for the colophons of Assurbanipal’s library. Unfortunately it is unclear what colophons appear on what tablets. Those quoted here are nos. 317 and 338. See also Lieberman 1990: 317. Livingstone 2007 discusses Assurbanipal’s scribal training.
46. Most scholars think that Assurbanipal integrated this library into the royal one at Nineveh, but it is also possible that there was a modern mix-up of tablets from Kalhu and Nineveh, which were excavated at the same time (Lieberman 1987: 217).
47. See Frame & George 2005 for a study of these letters. (The parenthetical remarks in the translation are mine to clarify the meaning of the text.) Although Goldstein 2010 argues convincingly that they are Hellenistic reworkings or even creations, there is no doubt that Assurbanipal avidly collected

- Babylonian manuscripts for his library. For records of his acquisitions in the year 647, see Parpola 1983.
48. Weidner (1952–53: 198) thinks that there were about 5000 literary and scholarly compositions in Assurbanipal's library, Oppenheim (1977: 13) only 1500, but that number seems too low (Potts 2000: 23).
 49. For Nabû-zuqup-kēna's collection, see Lieberman 1987, esp. 204–17 and note 222. For other family libraries, see, for example, Glassner 2002, 2005a, and 2007, Robson 2007, Clancier 2009, Maul 2010, and Rutz 2013.
 50. In Akkadian *kīma labīrišu šaṭirma bari*, cf. Hunger 1980–83.
 51. Translation from Parpola 1993: no. 177 obv. 15–rev. 5. Parpola (1970–83: vol. II, 99–100) argues that the request involves a change in the teaching curriculum.
 52. See chapter 4, 104–7, and Heeßel 2010 for Esagil-kin-apli's career.
 53. For Assurbanipal's extispicy series, see Jeyes 1997. Already in 1957 Lambert had declared the term “canonical” misleading in the study of Mesopotamian writings (Lambert 1957: 9). Important discussions of cuneiform canonicity are Rochberg-Halton 1984, Lieberman 1990, Veldhuis 1998a, and Robson 2011a. Frahm (2011: 317–32) presents a nuanced concept of canonization and suggests that in the late second millennium most Babylonian scholarly and literary texts were so fixed that they became canonical later on, but he does admit that a great number of variants can occur.
 54. A comparison between the histories of the biblical text and the *Epic* was the explicit concern of Tigay 1982. We know much more about the *Epic*'s history today; see George 2003: 3–70 and 2007 for surveys. Pongratz-Leisten 2010: 140–42 summarizes the changes in themes.
 55. *Enūma eliš* VI 112, translation from Foster 2005: 473.
 56. See Pongratz-Leisten 2010 for an exploration of the hypertext in Mesopotamian writings.
 57. No recent survey of the various writings of ancient Mesopotamia exists. Although Chiera 1938 is much outdated, it still is an informative and entertaining read. I know of no published estimate of the number of literary and scholarly cuneiform manuscripts preserved from all Near Eastern sites, but they rank in the tens of thousands.
 58. Rutz 2011: 296.
 59. Tanret 2008a discusses a box of tablets going as far back as five generations found in a priest's house at Sippar. They included economic documents no longer of any practical use and kept as mementos, and unlikely to have been consulted. Very occasionally an administrative record was duplicated to preserve its contents. An example is Richardson 2010a no. 1, which is a copy of an inventory made seventy-four years earlier. The scribe indicated that several entries were no longer legible.

An intriguing case of a tablet that survived for centuries was excavated at Uruk in the library of Iqīša from the fourth century BC (von Weiher 1983 no. 46). It is a commentary text on liver omens, and the colophon states that the tablet was written for Assurbanipal at Nineveh in the mid-seventh century BC, some 300 years earlier (Farber 1988: 35). This is the only As-

- syrian tablet found in Babylonia, and when and how it ended up in a private library is a mystery.
60. Translation from Parpola 1993: no. 155 obv. 7–13.
 61. Translation from Pritchard 1969: 345. Brinkman 1998–2001: 16 points out the legendary character of this passage.
 62. Van den Hout 2008: 212.
 63. 1960 and 1977. The recent attack on this concept (Robson 2011a) seems based on a very narrow reading of Oppenheim’s ideas.
 64. Berossos asserted that Nabonassar (the eighth-century Babylonian king Nabû-našir) “collected the records of the kings before him and destroyed them, so that the enumeration of the kings of the Chaldeans started from him” (De Breucker 2014: F16a), but we should not take his words literally. The abundance of sources from kings before Nabû-našir contradicts him. Note also that in the Armenian parallel of the passage the text reads: “In collecting the names of the kings he collects [that] alone, but he tells nothing precise of the deeds of some of them, indeed he did not consider them worthy of mention, since he has set out the number of kings” (De Breucker 2014: F3a).
 65. Frahm (1999) suggested that the famous scholar Nabû-zuqup-kēna added a couplet of verses to the twelfth tablet of the *Epic of Gilgamesh* to describe the fate of a soldier fallen in battle and left unburied. He would have done so after his king died in such circumstances. George (2003: 49) rejects the idea.
 66. Still, there are persistent attempts in ancient Mesopotamian studies to see historical events as the inspiration of literary works. The Babylonian Flood story, for example, has been connected to the invasions of Amorites in the early second millennium (Hallo & Simpson 1998: 33) and to the violent reconquest of southern Babylonia under Samsuiluna in the late eighteenth century (Wilcke 1999), while some consider the *Myth of Erra* to have been inspired by events that occurred between 1100 and 850 (Glassner 2004: 26). Such interpretations are debatable, and it is easy to find alternative ones.
 67. Glassner 1989 and 1995 give insightful if brief surveys.

CHAPTER 2. WORD LISTS: A VERY SHORT HISTORY

1. Borges 1975: 101–5.
2. For general surveys on the history of lexicography, see Boisson et al. 1991 and Schaer 1996. For *Erya*, see Coblin 1993 and for *Kitāb al-‘ayn*, Haywood 1978.
3. Landsberger & Civil 1967: 68 line 18.
4. See Tinney 1998 and Veldhuis 1997: 12–83 for schooling in the early second millennium, Gesche 2000 and Veldhuis 2013 for the first millennium.
5. Veldhuis 1997: 28–31 stresses the school context of most lexical manuscripts. Waetzoldt 1986: no. 3 is an example of a poorly written prism. See Glassner 2010: 404 for the Uruk colophon and Schileico 1914/15 for the

- Lugalušumgal prism, which was part of a pair with the unsigned prism, Lambert 1988. Delnero (2013: 146) now suggests that prisms were votive offerings rather than teaching tools.
6. Benno Landsberger started to publish this work in 1937 in a series entitled *Materialien zum sumerischen Lexikon: Vokabulare und Formularbücher*. Many scholars have contributed to the series.
 7. Digital Corpus of Cuneiform Lexical Texts (<http://oracc.museum.upenn.edu/dcclt/>). Unfortunately, the principal investigator's excellent book-length history of the cuneiform lexical tradition (Veldhuis 2014b) appeared after my book went to press. The reader will find much more information there on the details of my brief history.
 8. The best overview is Cavigneaux 1980–83, which provides much detail. More accessible are Cavigneaux 1989 and Civil 1995, while Civil 1975, albeit outdated, still merits reading. These articles do not give a true history of the genre but focus on descriptions of the lexical series, subdivided as sign-lists, thematic lists, synonym lists, and so on. Taylor 2007 presents a very brief but handy historical survey.
 9. Englund & Nissen 1993: pl. 4, quoted from <http://oracc.museum.upenn.edu/dcclt/P000011/html>. Assyriologists assign names to these lists based on scholarly convention. The example here is called Archaic Lu A. The name is based on the ancient designation of a later version of this text, which used the first words as its title, that is, Lu = *ša*. Because the archaic texts display a greater variety of sign forms than later ones, modern scholars classify them somewhat differently and use indicators such as gal_a.
 10. Englund & Nissen 1993: 128. Krispijn 1991–92: 14–15 calls such signs “theoretical signs” and compares the terms for vessels attested in the lexical material to those actually found in administrative documents. Englund 1998: 68 states that they “satisfied an appetite for completeness and symmetry in the lists. Thus all commodities which one might have imagined within a pot were included, even if not practically feasible.”
 11. Pettinato 1982: 109, no. 97.
 12. Despite the large amount of attention lexical texts from this period have received in recent scholarship, no catalogue of the material exists.
 13. Civil 1979: 91, lines 66–69.
 14. Veldhuis 2010a.
 15. Civil 2009: 63.
 16. Veldhuis 1997: 22–23.
 17. E.g., Tanret 2002, Hamza 2011: 413.
 18. See Cavigneaux & Colonna d'Istria 2009: 52 for Mari & Rouault 2011 for Terqa. Note that a literary text in the Emesal dialect of Sumerian was found at Terqa as well (text 8–24). For other sites, see Tanret 2008b (Ashnakkum); Yamada 2008 (Tabatum); Krebern timer 2001 (Tuttul); van Soldt 1995b (Tell Hammam et-Turkman; ancient name uncertain); and Dalley et al. 1976 no. 220 (Qattara). At Tabatum was also discovered a student copy of a list of god names, the so-called Weidner god list (Shibata 2009). The Tigunānum text was published in Civil 2010: 127–28 as possibly from Emar and dating

- to the second half of the second millennium. George 2013: 101 attributes it to Tiginānum in the seventeenth century.
19. See Tanret & De Graef 2010 for Susa. Michel 2003: 139–40 gives a full list and bibliography of the Old Assyrian material, and Robson 2008: 133–35 discusses the mathematical exercises. Michalowski 2012: 42 stresses the elementary character of writing in the merchant community of Kanesh.
 20. Veldhuis 2000. Van Soldt 2011 discusses how this material relates to that found in the so-called western periphery.
 21. See Eidem 1997 (Bahrain); Herrero & Glassner 1996 (western Iran: Kabnak and modern Abu Fanduweh); Lacheman 1939 (northern Iraq: Nuzi); Süel & Soysal 2003, Beckman 2008, Wiseman 1953 nos. 445–47, Lauinger 2005 (Anatolia and northern Syria: Shapinuwa, Ekalte, Alalakh); Horowitz et al. 2006 (Palestine: Hazor, Ashkelon, and Aphek); Izre’el 1997 (Egypt: Akhetaten); Weeden 2011: 91–131 (Hattusas); van Soldt 1995a (Ugarit); and Cohen 2009: 132–35 and 195–208, Gantzer 2011, and Rutz 2013: 158–219 (Emar).
 22. Cohen 2010.
 23. Veldhuis 2014a.
 24. See Civil 1989: 7 and Cohen 2009: 128–29 for Ribī-Dagan, Fales & Postgate 1995: no. 156 for Ninurta-gimilli.
 25. See chapter 8, p. 203.
 26. Hunger 1968: 33 no. 58. *ki-ulutin-bi-še₃* = *ana ittišu* is the name of a lexical series.
 27. See Horowitz 1988 for Ura = *hubullu* and Weiershäuser 2007 for a more general discussion. Veldhuis 2012 discusses how Middle Assyrian scribes adopted Babylonian lexical material with the aim of preserving it, but still often edited it using their own scribal practices.
 28. See Gurney & Hulin 1964: 19–22 and Pedersén 1998: 178–80 (Huzirina); Pedersén 1998: 155–58 (Dur-Sharrukin); and Wiseman & Black 1996: nos. 208–45 (Kalhu).
 29. For the library of Assurbanipal, see chapter 1, pp. 22–24. Fincke 2003–4 analyzed the Babylonian writings in the British Museum collection and stated that lexical texts made up 3.5% of the literary and scholarly material; Charpin 2010a: 192–93 has a higher estimate of 20%.
 30. Cavigneaux 1980–83: 627.
 31. Hrůša 2010: 418. For *mur-gud*, see Frahm 2011: 249–53.
 32. Bahrani 1995.
 33. See chapter 1, note 59. Clancier 2009: 260–61 notes that some Assyrian texts inspired later Babylonian sources, while Beaulieu 2010 argues that there was substantial influence of Assyrian writings on Hellenistic-era Babylonian ones. The Assurbanipal tablet found at Uruk could have been taken to Babylonia before Nineveh was sacked.
 34. See Cole 1996: nos. 114–24 for the Nippur archive, Gesche 2000 for school texts of the first millennium, and Cavigneaux 1981 for the group from the Nabû ša ḫare temple.
 35. Clancier 2009: 215–318.

36. See chapter 1, p. 24.
37. See Weidner 1914: 126 and Civil 1979: 268 for the commentary. The lexical passage explained is Aa 9 = II/1 line 9. The liturgical quotation is Civil 1976: 76. For a detailed description of commentaries on lexical texts, see Frahm 2011: 242–56. He refers to this text on p. 244 (s.v. Aa 9 b).
38. Geller 1997: 68.
39. For an accessible overview, see Boiy 2004: 42–43. He dates these texts in the first centuries BC and AD, as do Clancier 2009: 253, De Breucker 2011: 639, and Westenholz 2007. Geller 1997 thinks they can also be later.
40. Landsberger & Reiner 1970: 65–68.
41. Landsberger 1937: i–ii.
42. Civil 2009.
43. Englund 1998: 103–6.
44. Cf. Wagensohn 2010: 288–89.
45. Veldhuis 2011 gives an overview of the list's early history. For a catalogue of the manuscripts, see Civil 1969: 8–10 (some additional manuscripts exist). Pettinato 1981a: 3–25 edits the Standard Professions List from Ebla, and Arcari 1983 and Archi 1987 publish the Eblaite vocabulary based on it (on the meaning of the sign names, see Civil 2009: 64–66. For the reading of Sumerian as Semitic, see Civil and Rubio 1999: 265–66). For the Nagar exemplar, see Michalowski 2003; it is the only lexical text found at that site.
46. Taylor 2008 and Veldhuis 2010a discuss the practice of copying such archaic texts. For examples, see Chiera 1929: no. 113 (Nippur) and Kienast 1978: pl. 92 F 20 (Kisurra).
47. Veldhuis 1997: 55, Taylor 2001.
48. Civil 1969: 33–64 edits OB Lu. For a quotation from a literary text that names the composition Lu = *šū*, see chapter 1, p. 19.
49. Van der Meer 1935: no. 39.
50. Civil 1969: 178 col. I lines 45–46.
51. See Lacheman 1939: 91 (Nuzi); Cohen 2009: 205–6 (Emar); van Soldt 1995a: 203–4 (Ugarit); and Civil 1969: 82–84 and Civil 1987a (Hattusas).
52. Civil 1969: 214–15.
53. Civil 1969: 87–90.
54. Gesche 2000: 124–35.
55. Cavigneaux 1980–83: 628–30.

CHAPTER 3. CONSTRUCTING REALITY

1. See Barthes 1984: 40. Edzard 2007 calls the lexical list an art form.
2. Veldhuis 1999: 114 hints at the usefulness of a paradigmatic reading. The doctoral dissertation Gantzert 2011 includes what he calls horizontal and vertical analyses of lexical texts.
3. Civil 1975: 130.
4. See the example quoted in chapter 2, p. 43.
5. For glosses, see Krecher 1957–71. The example quoted here is Gadd & Kramer 1966: no. 354, line 4.

6. Translation after Civil 1995: 2308–9. Modern scholars have assigned the numbers 0 through 5 for each of the elements included.
7. The example I give here is somewhat artificial, as to my knowledge there is no single manuscript that provides all the elements I discuss here for the Sumerian logogram LUGAL. I chose it as a basic word, well attested in lexical texts and other writings. The lexical data for it are summarized in Reiner et al. 1992a: 76–78.
8. See Schretter 1990 for this alternative form of Sumerian.
9. Jeyes 1989: 112–13 line 8'. See Lieberman 1977 for the use of sign names in such contexts.
10. For sign names, see Gong 2000. Arcari 1983 and Archi 1987 discuss the Ebla material. The first-millennium evidence for *lugalaku* appears in Gong 2000: 157.
11. See Laroche 1971: 47–53 (Hattusas); Nougayrol et al. 1968: nos. 130 and 137 (Ugarit; when an Ugaritic translation was provided, it was written in syllabic Babylonian, although an alphabetic script to record that language existed); and Horowitz et al. 2006: 31–32, 42–43 (other Levantine sites).
12. See chapter 2, p. 44.
13. Scholars of the Sumerian language early on read the lexical texts as if they were modern dictionaries and mined them for all possible pronunciations and Akkadian equivalents of logograms. This work culminated in the multivolume *Šumerisches Lexikon* (Deimel 1928–33), which gave a huge list of readings and translations for each Sumerian sign. See Civil 1975: 138–39 for a description and critique of this project. In the same article (pp. 131–36), Civil describes how artificial meanings were created in the syntagm.
14. Landsberger et al. 1956 edits these grammatical texts. See Black 2004: 17 for nonsensical constructs.
15. Taylor 2007: 440–41.
16. Von Soden 1936.
17. Oppenheim 1981: 636; Veldhuis 1997: 137–38; 1999, 2004: 82–85.
18. Edzard 2007 and Hilgert 2009 provide excellent surveys with examples of the choices Babylonian scribes made in organizing lexical lists. The Chinese also faced the challenge of organizing lexicography in a logographic system. An analysis of their early dictionaries shows that they too used a mixture of thematic, graphic, and phonetic criteria (Bottéro 2000).
19. Lloyd 2004: 93–117.
20. For the entry “fattened pig,” Landsberger 1962: 20 lines 174–75, and *ibid.*: 11–14 for animals with names starting with *ur*. Veldhuis 2006a discusses the various placements of the pig section.
21. Landsberger 1960: 52 line 373.
22. Landsberger & Civil 1967: 52; Westenholz & Sigrist 2008.
23. See Cavigneaux 1980–83: 610 for the semantic principle, and Hilgert 2009: 296 for the example quoted.
24. Edzard 2007: 22.
25. Hilgert 2009: 295.
26. Late-period scribes sometimes made fanciful drawings of what they thought were the ancient versions of signs; cf. Oates & Oates 2001: 208 fig. 125.

27. Civil et al. 1971: 17. For acrographic lists in general, see Schuster 1938.
28. Hilgert 2009: 292–94.
29. See Picchioni 1997 for the list. Pettinato (1982: xix) did not recognize the sequence and read the last sign with its equivalent *igi*.
30. Edzard 2007: 21.
31. Cf. chapter 2.
32. Pettinato 1981b: 247–49; Pettinato 1982: xix–xxi.
33. Civil et al. 1971: 68–73.
34. See Reiner & Civil 1974:103 lines 247–48 for the passage, Edzard 2007: 23 for the interpretation.
35. Durkheim and Mauss 1963: 81 (originally published in 1903).
36. Englund 1998: 82–110. See Wagensonner 2010 and 2012 for the close connections between lexical and administrative texts of the Uruk period.
37. Landsberger 1937: 16–21.
38. See Sjöberg 1976: 194–95 line 159 for the passage in the hymn, Michalowski 1998 for its identification as a source of a lexical sequence.
39. Hruška 2010: 6 calls it a “lexicon of literary Akkadian” but acknowledges that non-literary terms are included.
40. See chapter 5, p. 126.
41. See Civil in Sallaberger 1996: 134–53 for the full list of vessels in Ura = *hubullu*, Sallaberger 1996: 55 for the joke. Landsberger 1960: 10 lines 37–39 lists “sheep eaten by a god,” etc.
42. Landsberger 1937: 101–3.
43. See Landsberger 1958: 17 and 42 for the lexical passages. Some scholars think “6 or even 8 oxen” could be hitched to a plow (Heimpel 1995: 135), but the ethnographic parallels cited are much later and involve iron plows. It seems more likely that not more than four animals were ever used in Babylonia (Hruška 1990: 453).
44. See the lexical passages Landsberger 1960: 16 (sheep), 29 (goats), and 49 (cows); Landsberger 1962: 13–14 (dogs), 20–21 (pigs), 39 (ants), 40 (scorpions); Landsberger & Reiner 1970: 57 (stones); Landsberger 1957: 92 (trees), and 121 (dates).
45. Veldhuis 1997: 124–25.
46. Civil 1987b.
47. Vanstiphout 2004: 82–83.
48. For the passage, see Rabelais 1993: 39–40. Bakhtin’s remark appears in 1984: 176.
49. See Black et al. 2004: 184–85 for the English translation. In parentheses I provide a rendering of the names of Ninurta’s weapons in Sumerian, admittedly at best approximate, to give an idea of the poet’s use of word play (when all in capital letters, the pronunciation is unclear).
50. Goody 1977: 99.
51. See Michalowski 2012: 46–47 for lexical passages regarding wood, Civil 1994: 3–4 for *The Farmer’s Instructions*.
52. See Sallaberger 1996 for a comparison of the use of terms for vessels in lexical and practical texts.

53. See Steinkeller 1995: 61 for the animals, Waetzoldt 1972: 47–48 for their wool.
54. See van Driel 1993: 229 for late Babylonia, Killen 1993 for Mycenaean Greece.
55. Judt 2010.
56. *Seventh letter*, sec. 344, and *Phaedrus*, sec. 274–277; translation from Hamilton 1973: 140–41 and 95–99.
57. See Harris 1989: 37–42.
58. The writings of Jack Goody have been most outspoken in this respect, starting from an article he coauthored with Ian Watt in 1963 (Goody & Watt 1963) and continuing ever since with modifications regarding what types of writing are involved (e.g., Goody 2000). In particular, the idea that literacy affects logic has been much criticized (e.g., Halverson 1992), but the debate remains far from settled—neuroscientists do see changes in the brain when humans become literate (Wolf 2007). The scholarship concerning Goody’s literacy theory is very extensive; a recent survey can be found in Lurie 2011: 33–40.
59. Gelb dropped the subtitle in the second revised edition of 1963.
60. Derrida 1974: 83 and 323.
61. Bahrani 2003: 96–120 presents an explicit and thorough application of Derrida’s ideas in the study of ancient Babylonian representation. Glassner 2003 uses some of the concepts in his analysis of the invention of cuneiform.
62. Derrida 1982: 3–4.
63. Damerow 2006.
64. Bottéro 1992: 85–86.
65. Maul 1999a provides a very insightful discussion, from which I take my examples.
66. Larsen 1987: 220. The authorities he quotes are Oppenheim 1977: 238–39 and Gelb 1963: 202.
67. Seminal was the article by Bottéro (1992: 156–84), originally published in 1982.

CHAPTER 4. OMEN LISTS IN BABYLONIAN CULTURE

1. Falconer 1923.
2. Pliny’s quote is from *Natural History* VI 30 121/2. Hunger & de Jong 2014 publishes the last dated cuneiform tablet.
3. Cumont 1912: 26–27.
4. Aaboe 1991: 276.
5. Folkerts 2001.
6. Cf. Bottéro 1992: 39.
7. The scholarly literature on Mesopotamian divination is vast and has increased rapidly in the last two decades. Still seminal is the description and analysis of divinatory practices in the article Jean Bottéro contributed to an interdisciplinary analysis of divination and rationality in 1974. Most

discussions treat the subject according to the techniques used: extispicy, astrology, etc. Maul 2003–5 surveys all the materials, giving a bibliography of the modern editions; Maul 2007 is a less technical English summary. The recent book Maul 2013 contains a detailed examination of the most important divinatory practices. Rochberg 2004 surveys the so-called unprovoked omen techniques and analyzes celestial divination. Brown 2006 gives a clear overview of divinatory writings, with a good bibliography and explanations of basic Assyriological terminology; some of his remarks about what omens mean are not commonly accepted in scholarship, however. Koch 2011 and Rochberg 2011 provide very accessible analyses of the principles behind extispicy and astrology respectively. The useful survey of ancient Near Eastern divination practices written by the biblical scholar Cryer (1994: 124–228) strongly criticizes how Assyriologists have treated the material.

8. Maul 2003–5: 47, 2007: 362.
9. See Foster 2005: 744 and 807 for the quotes about Shamash. For other examples, see Reiner et al. 1992b: 121–22 and Rochberg 2004: 187 and note 67. For the *Diviner's Manual*, see Oppenheim 1974. The translation here is from Rochberg 2004: 166.
10. See Koch-Westenholz 2002, Richardson 2002 and 2007, and George 2013: nos. 4–6 and Appendix no. I for Old Babylonian extispicy reports. Veldhuis 2006b remarks on the favorable outcome; the one Old Babylonian report that records negative results (George 2013: no. 6) seems to be a school exercise. The thirteen reports from one Sippar archive remain unpublished (Tanret 2004: 265); obviously many more consultations could have taken place in the eight years documented.
11. Durand 1988: 37. In one letter (*ibid.*, pp. 258–59 no. 92) a diviner stated that he slaughtered three sheep to investigate one case.
12. Collected and edited in Hunger 1992 and Parpola 1993.
13. Fales & Postgate 1992: no. 1.
14. See Flower 2008 on Greece, Nissinen 2010 on the biblical world, and Vandermeersch 1974 on China.
15. Bottéro 1974: 161–65. Glassner 2008 stresses the parallelism between written and divinatory signs.
16. Rochberg 2004: 90.
17. The association of corpora with specific classes of scholars I use here comes from Parpola 1971: 12–15.
18. Rochberg 2000.
19. Various ancient editions of the series assign different numbers to some tablets; see Hunger & Pingree 1999: 13 and note 62 of this chapter.
20. Brown 2000.
21. Hunger 1992: no. 287. Nergal-eṭir's planetary observations are edited in the same volume as nos. 244–86.
22. Edited in Leichty 1970: 159. Line 19 considers the birth of two fetuses joined together with 8 feet and 2 tails (De Zorzi 2011: 65).
23. Freedman 1998: 97.
24. Oppenheim 1974: 204.

25. Koch-Westenholz 2000: 32.
26. For the order of observations in extispicies, see Starr 1983. Koch 2005 provides an edition of *Multābiltu* and discusses orientation tablets. See Koch 2010 for the limit to three consultations.
27. The text is edited by Heeßel (2000). Heeßel (2004) argues that the text is not a divinatory series, and displays a distinct rationale. It uses the same system of exploration, however, and includes entries found in other omen series, so I follow the usual practice of discussing it with omen texts. For the lines quoted here, see George 1991: 143 and Rochberg 2004: 92.
28. For *Alamdimmû*, see Böck 2000 and the colophon mentioning Esagil-kīnapli's reorganization, pp. 104–7 in this chapter. The vast corpus of *namburbû* is only partly edited; Maul 1994 is a major contribution, however. For general discussions of the texts and their purposes, see Bottéro 1985: 29–64, Maul 1992 and 1999b, and Schwemer 2011: 421–23. A catalogue of purifying rituals appears in the so-called *Exorcist's Manual*, known from a handful of first-millennium manuscripts and edited in Jean 2006: 62–82. The more than 100 titles mentioned in it did not yet constitute the entire corpus of the discipline (Bottéro 1985: 99–100).
29. After Worthington 2005: 19. On Babylonian medicine in general, see Geller 2010.
30. Parpola 1993: no. 160. For King Esarhaddon as the addressee, see Fincke 2003–4: 118. Verderame 2008: 60–61 lists other scholars expert in multiple disciplines. Maul 2013: 276–96 argues that the boundaries between different omen techniques disappeared in the first millennium.
31. See chapter 1, p. 24, for Assurbanipal's acquisitions. Fincke 2003–4 provides the statistical analysis given here. Lieberman 1990 and Charpin 2010a: 199 see Assurbanipal's library as a reference tool for the king to verify personally what diviners and other scholars told him.
32. Published surveys of divinatory writings in ancient Mesopotamia use the various practices of divination—observations of celestial signs, terrestrial signs, dreams, patterns made by oil poured on water, etc.—as their basis of organization and mention omen series as one source of information, alongside reports of divinatory practices in royal inscriptions and so on. In their treatment of the omen series they often utilize the richest and best preserved first millennium evidence as a starting point while indicating when and where earlier materials occur. This makes it hard to get a sense of the evolution of the divinatory genre as a whole, a full reconstruction of which taking all available evidence into account would require a monograph on its own. Rochberg 1999a discusses some of the challenges facing the writing of a literary history of Mesopotamian divination.
33. Falkenstein (1966) argued at length that there must have been precursors to the preserved omen series, but recently Richardson (2010b) systematically surveyed all the evidence Falkenstein adduced and rejected the idea. Glassner (2012a and 2012c) also stresses that the formulation of omens happened in the early second millennium and connects the activity to cultural and political events, such as the disappearance of Sumerian religion and the arrival of Amorites in Babylonia. He does argue, however, that the

elements used in the treatises have antecedents in the third millennium. Maul (2013: 200–17) discusses the intimate connection between divination and state power in the early second millennium and points out the innovative character of the omen lists. He sees their appearance as part of the greater range of subjects being recorded at that time.

34. The omen quoted is Rutten 1938: 43 no. 8. See Biggs 1980–83 and Meyer 1980–83 for liver models. More recently published are two models excavated in a private house at Meturan, one of them with an explicit reference to the eighteenth-century King Dadusha (al-Rawi 1994: 38–41). See also Leichty 1993 for lungs, and Veldhuis 1998b: 166 for colons. Meyer 1987 studies all the material in detail. See also Maul 2013: 220–27 for non-Babylonian evidence.
35. Goetze 1947a: 1–2. In the eighteenth-century archives at Mari appear two texts that contain full liver omens as well (Durand 1988: 63–68 nos. 2 and 3), which were local creations written following Mari’s indigenous scribal practices.
36. Jeyes 1989 edits the material (for the late-seventeenth-century date, see pp. 5–6).
37. The omen quoted is Jeyes 1989: 160 line 5, the law, Roth 1997: 130 *Hammurabi* § 268. For the formulation of laws, see chapter 7.
38. Richardson 2010b: 241.
39. See Veldhuis 2000: 74 and Wiseman & Black 1996: no. 89 for monolingual Sumerian texts, and Cavigneaux 1996: 324, Hunger 1976: no. 85, and von Weiher 1988: no. 86 for bilingual ones. By the late eighteenth century a complete omen written in Sumerian appeared in a literary context, but this was a contrived translation of an Akkadian omen (Michalowski 2006). Surprisingly, a line from the bilingual omen Hunger 1976: no. 85 appears in the list of titles of terrestrial omen series in the *Diviner’s Manual* (Oppenheim 1974: 202), a text that enumerates unfamiliar series. Perhaps this indicates the existence of a different tradition, whose records are now mostly lost.
40. Richardson 2010b: 235. Winitzer 2011: 78 mentions only 1,500 omens, still a large corpus.
41. See Weisberg 1969–70 and Joannès 1994 for *šumma ālu*, Leichty 1970: 201–7 for *šumma izbu*, Hunger & Pingree 1999: 7–8 for celestial omens, De Zorzi 2009: 88 for internal marks on birds, and Durand 1997 for external ones. Durand argues that bird divination derived from northern Syria. Maul 2013: 130–53 gives a detailed survey of the procedure as a less expensive alternative to sheep extispicy.
42. Maul 2003–5: 83–85 and 2013: 155–79.
43. See Rouault & Saporetti 1985: 28–29 for Tell Yelkhi (ancient name unknown), Joannès 1994 for Haradum.
44. Richardson (2010b) discusses the presentist concerns of Old Babylonian omens in detail. Riemschneider 2004: xx–xxii also remarks that omen apodosis reflect the political concerns of the early second millennium. Maul 2013: 187–91 talks about a “political turn” that took place in the twenty-first century, but no omen series existed at that time yet.

45. See Brisch 2008 for a recent investigation of Babylonian divine kingship in a comparative setting. The end of the practice is not really addressed there.
46. See George 2013: 101–258 and 285–319 for texts from both groups, published and unpublished.
47. See Riemschneider 2004 (Hattusas); Wiseman 1953 nos. 451–52 (Alalah); Cohen 2009: 136–43 and 208–14 (Emar, Qatna, and liver models from Syria-Palestine); Rutz 2013: 219–63 (Emar); Xella 1999 and Dietrich & Loretz 1990: 5–16 and 87–204 (Ugarit); and Labat 1974, Biggs & Stolper 1983, and Daneshmand 2004 (Susa and neighboring sites).
48. Oppenheim 1956: 257–60 (Susa) and Riemschneider 2004 (Hattusas).
49. Koch-Westenholz 1995: 44–51.
50. For example, the Akkadian-Hittite bilingual Weidner 1922 no. 1.
51. Rutz 2006.
52. Rochberg 2004: 243 suggests that Babylonian divinatory practices were widely borrowed in the Near East and beyond, but others disagree. Riemschneider 2004: xlvii–l argues at length that Babylonian divinatory texts had no use in Hittite practice; see also Van den Hout 2003–5. For Syro-Palestinian practices that were not Babylonian in character, see Nissinen 2003.
53. Lacheman 1937. Cohen’s reference to another omen list (2009: 208 n. 190) is a mistake.
54. See chapter 8, p. 203, for this so-called library. Surveys of the tablets appear in Weidner 1952–53 and Pedersén 1985: 31–42. A full publication of the omen materials is underway, with two volumes published so far (Heeßel 2007 and 2012).
55. Heeßel 2011a.
56. For the reports, see Kraus 1985 and chapter 5, p. 131. Reuther 1926: 18 mentions that he excavated a diviner’s archive at Babylon, and Pedersén 2005: 78–82 gives a full catalogue of the tablets still traceable from it. They include some that ended up on the antiquities market, for example Clay 1923: nos. 15 and 16. Heeßel 2011b provides an edition of these two manuscripts, with an additional one from the Babylon collection in Berlin, and some other of these tablets have been edited. Pedersén also reports sundry omen texts from elsewhere in Babylon (e.g., 2005: 103 nos. 22 and 26). Koch-Westenholz 1995: 42 comments on two astrological texts from Nippur, while Rutz 2006 publishes one presumably from that site. A handful of Middle Babylonian omen lists are known from illicit digs and have thus no known provenance. George 2013: 229–57 publishes two of them and provides information on others, published and unpublished.
57. Jeyes 2000.
58. Translation after Finkel 1988: 149–50 and Heeßel 2010: 140–41 (I have placed in parentheses the epithets given to gods to simplify the text). The colophon is preserved in two manuscripts, one from seventh-century Assyria, the other from first-century Babylonia.
59. The *Exorcist’s Manual* states that Esagil-kin-apli was the descendant of the astral deity Lisia or Lisin, a goddess closely connected to Esagil-kin-apli’s

hometown, Borsippa. Jean 2006: 73–74 provides a list of the works associated with Esagil-kīn-apli. Of course, the passage merely states that the texts are “of Esagil-kīn-apli,” which could mean he owned rather than edited them. See Lenzi 2008b for a recent discussion and edition of the list of kings and sages, and Lambert 1962: 64–65 for Ea as the author of exorcistic works and omen texts.

60. Heeßel wrote several studies approaching Esagil-kīn-apli’s work from various angles, including 2000: 104–10, 2010, 2011a, and 2011b. See 2010: 160 for the rejection of his edition at Assur. Frahm 2011: 324–32 discusses him at length too, and suggests that he initiated the formulation of commentary texts.
61. Wiseman 1955. For some unknown reason the manuscript remained in Kalhu, where it was probably written, or was returned there after had Sargon II used it in Dur-Sharrukin.
62. See chapter 1, p. 26. The library of Assurbanipal, for example, contained manuscripts of two versions of the celestial omen series *Enūma Anu Enlil*: an Assyrian one with a total of 69 tablets, and a Babylonian one of 70 tablets. At the same time there existed another version in Assyria attested at Assur, with 63 tablets, and one in Babylonia attested at Babylon and Kish, with 68 tablets (Fincke 2001).
63. The information for these numbers comes from Maul 2003–5.
64. See the edition of the series, Leichty 1970.
65. See Frame & George 2005 and chapter 1, pp. 23–24.
66. The library at Dur-Sharrukin, the capital immediately before Nineveh, was found empty. The Nabû temple library at Kalhu yielded some 90 omen texts, a third of which were celestial; see Wiseman & Black 1996.
67. For Nabû-zuqup-kēna, see Lieberman 1987 esp. 204–17 and note 222. For omens at Assur, see Pedersén 1986: 145. For the “House of the Exorcists,” see *ibid.*: 41–76 and Maul 2010. For Huzirina, see Gurney & Hulin 1964: nos. 307–28.
68. For the Esagil at Babylon, see Clancier 2009: 210, 454–59. For Sippar, Starr & al-Rawi 1999 (extispicy) and al-Rawi & George 2006 (celestial). The existence of other omen series was reported in articles regarding this important library, whose publication was disastrously affected by the recent wars in Iraq. For Uruk, see Clancier 2009: 81–90, Beaulieu 2006, and Clancier 2011. The last datable tablet from Uruk is Hunger & de Jong 2014; from Babylon, Sachs 1976. For the connection between almanacs and horoscopes, see Rochberg 2004: 153–57.
69. Pliny *Natural History* VII 56.194. Some manuscripts add M and raise the number to 730,000 (Rackham 1969: 637), but this very high number has inspired interpreters to suggest various ways to reduce it.
70. The literature on astronomical/astrological materials of the first millennium is extensive and can be difficult to understand for someone unfamiliar with astronomy (as I am). Neugebauer 1969 is a classic still worth reading. Rochberg 2011 provides a recent survey on observation, while her 2004 book is a rich source of information on many questions. Hunger & Pingree 1999 is more technical. Steele 2008: 39–66 gives a very accessible review of the

innovations in the later first millennium, which Brown 2000 argues originated in the 8th–7th centuries.

71. Omen texts do not feature in the analyses of school curricula of the early second millennium, mentioned in the discussion of lexical texts here. Focusing on divinatory writings, scholars have identified certain manuscripts as deriving from a school context. Some reports of extispicy readings may be exercises (Goetze 1947a: no. 11, cf. Richter 1999; George 2013: nos. 5 and 6). Glassner (2009: 13–15) lists a different group of manuscripts as teaching tools, because of their format and the appearance of glosses in them. He ends that discussion, however, with a statement that the distinction between school exercises and records for the preservation of a text is vague. Winitzer (2013: 179 note 23) considers the case for omen collections as part of the curriculum unproven.

In the later second millennium a school text from Nippur contains an omen in the Sumerian language, by itself highly unusual (Veldhuis 2000: 74 no. 2.6). Its instructional purpose seems more language-related than to teach divinatory writings.

For the first millennium, Mauer (1997) suggests that a late Babylonian manuscript from a house in Uruk is a school excerpt, based on its awkward writing, while Gesche (2000: 216) states that extispicy and *šumma ālu* as well as *Enūma Anu Enlil* were taught in higher levels of curriculum, but her examples are not convincing.

Clearly, divinatory series were taught. In his colophon quoted before, Esagil-kin-apli claims that he produced a new edition of the omen series *Sakikkû* for teaching. But we cannot easily identify the records of that instruction, while they are distinctive for the study of writing, literature, and mathematics.

72. *Library of History* Book II 29.4, translation from Oldfather 1933: 447, adjusted following Wirth & Veh 1992: 166.
73. See Verderame 2008 for sporadic references in Assyrian letters on how scholarship was passed on across generations. The so-called Enmeduranki text states that the disciplines of extispicy and oil divination should be taught only by a father to a healthy son (Lambert 1998).

CHAPTER 5. THE STRUCTURE OF KNOWLEDGE OF THE UNIVERSE

1. See Ginzburg's discussion (1980) of how the art connoisseur, the psychoanalyst, and the detective all look at what seem to be insignificant facts in their investigations. He traces their methods back to the prehistoric hunter and the Babylonian diviner.
2. I am not the first to suggest this approach. As early as 1989 Guinan brought up the concept of syntagm (1989: 229). Brown 2000: 130–31 uses the terms “syntagm” and “metaphor” for my syntagm and paradigm. See also Winitzer (2006), who develops the terms “inner-omen” and “inter-omen organization” with a clear understanding of structuralist analysis, and Rochberg (2009: 11), who utilizes syntagm and paradigm in a strictly formal sense.
3. See chapter 7, pp. 159–62, for laws. Statements like “omen of Ibbi-Sin when

Elam reduced Ur to tell and rubble” (Guinan 1997: 423) appear by themselves on liver models, not in the lists I discuss here.

4. The Akkadian verbal forms used are the preterite (to indicate the past) and the stative (to indicate a state of being); see Glassner 2005b: 292–96, Winitzer 2006: 41. The present tense is used very rarely, and only with the verbs “to see” and “to be.” The same sequence appears in omens as in laws: there is a temporal succession between what happened in the protasis and its result in the apodosis. Although the Akkadian uses a past tense (preterite), modern translations render the verb most often in the present tense with a present-future aspect, because we assume that the idea expressed is that “whenever” a sign appears, a certain outcome will happen (Rochberg 2009: 10).
5. Jeyes 1989: 160–61 lines 4 and 25–26.
6. Winitzer 2006: 42–48.
7. Jeyes 1989: 160 lines 13 and 15.
8. The excerpts quoted are from Winitzer 2011: 85 and Jeyes 1989: 99 line 6'. Winitzer 2006: 54–202 and 2011 discuss these occurrences in detail. Frahm 2011: 38 explains literal and nonliteral readings of the cuneiform signs in the protasis. For the *Babylonian Creation Myth*, see chapter 1.
9. Bottéro 1974: 165–66. I do not share his idea that these derive from empirically observed anecdotes.
10. Bottéro 1974: 187–89. His suggestion that these are abstractions developed in later centuries is contradicted by the early-second-millennium examples Bottéro himself quotes.
11. As Annus (2010: 13) states, “emically” they have to make sense to the participants of the culture.
12. Rochberg 1999b and 2010.
13. Rochberg 2009 eloquently argues the points about logic made here.
14. See chapter 3, p. 62.
15. The example quoted is from Goetze 1947b: 257. Scholars who see an empirical basis for omens include Bottéro (1974: 144–52), Starr (1983: 7–8, with other bibliographic references), Larsen (1987: 212–13), and Hallo & Simpson (1998: 158–59). Many specialists of divinatory texts have contested the idea forcefully, however: Koch-Westenholz (1995: 15–19), Rochberg (1999b, 2004: 237–86, 2009, and 2010), Brown (2000: 109–13 and 2006), and Maul (2013: 212). Lehoux 2002 surveys the debate in detail and accepts some historicity because of the parallelism with law codes. I would reverse the argument and deny the law paragraphs any historical value because of their resemblance to omens; see chapter 7.
16. Reiner 1999: 24 interprets this as a report of an eclipse.
17. Finkelstein (1963) finds the information reliable; Liverani (1993) rejects it as fiction.
18. On *Multābiltu*, see Bottéro 1974: 185–87, Maul 2003–5: 73–74, and Frahm 2011: 186–89. The text was edited by Koch (2005).
19. The examples come from Koch 2005: 92–94, lines 6, 12, and 19. For *malku* = *šarru*, see chapter 2, p. 50. The equation *magšaru* = *danānu* appears on pp. 156–57 in the edition of that text by Hrůša 2010. Only one

- other entry in the preserved parts of *Multābiltu* can be found as a synonym in *malku* = *šarru*, that is *šikšu* “ulcer” = *muṣšu* “illness,” Hrůša 2010: 94–95.
20. Koch 2005: 90–91 lines 1–4.
 21. Frahm 2010: 107 no. 26.
 22. Hunger 1992: no. 304, cf. Veldhuis 2010b: 83–84.
 23. See Bottéro 1974: 147 for the text, p. 164 for the word play.
 24. Koch 2005: 230–31 (in parentheses I indicated what logograms the text uses). Glassner 1983 discusses the history of the omen in detail.
 25. See Greaves 2000: 111–12 for the Old Babylonian passage, and Rochberg 2009: 11 n. 2 or 2010: 20 for the late Babylonian (I inserted the relevant Akkadian terms in parentheses). In the second omen the word for “usurper” is written with the logogram IM.GI. The word play only works when one keeps the logographic writing ̒UM.̒UM in the protasis but reads the Akkadian rendering for the logogram IM.GI in the apodosis.
 26. Frahm (2010) discusses all these occurrences in detail (the quotations here appear on p. 106 and p. 122). He corrects many of the suggestions Bilbija (2008) made for the physiognomic omens.
 27. See Starr 1983: 15–24 and Guinan 1996.
 28. Such semantic associations were recognized a long time ago, e.g., Bottéro 1974: 164. De Zorzi 2011 provides a systematic overview of how they occur in the series *šumma izbu*, while Winitzer 2006: 642–48 gives a full list of recognizable links between protases and apodoses in Old Babylonian omens. Streck 2001 presents examples from the first twenty-one tablets of *šumma ālu*. We are still a long way from understanding most connections, however.
 29. Stol 2000: 103.
 30. Freedman 1998: 39 line 155 and 279 line 38'; cf. Annus 2010: 4. Oppenheim (1977: 211) stressed the close relationship between omen apodoses and Babylonian literature.
 31. Brown 2000: 153–56.
 32. Starr 1983 edits and studies the Old Babylonian prayers. For the chapters of the first millennium extispicy series, see Maul 2003–5: 72–73.
 33. Koch-Westenholz 2000: 46. Maul 2013: 64–100 in detail shows the location of the Babylonian terms on photographs of actual sheep livers.
 34. Koch-Westenholz 2000: 38–70.
 35. Guinan 2002: 11.
 36. My discussion here is much inspired by Winitzer 2006 who provides a systematic analysis of Old Babylonian omens with numerous examples.
 37. Starr 1983: 18 calls it the first principle. Many other scholars have remarked on it, e.g., Guinan 1989.
 38. Goody 1977: 52–73.
 39. For the Table of Opposites, see Needham 1987: 16, a book that analyzes the universal use of binary concepts in detail, and questions its alleged simplicity. See also Lloyd 1991: 27–48 for a criticism of the universality of the right/left dyad.

40. Winitzer 2006: 234–314; the quote appears on p. 299.
41. Cf. Van De Mierop 2010.
42. Guinan 1996, De Zorzi 2011: 52–53.
43. Starr 1983: 19.
44. *Šumma izbu* 6: 15–18; Leichty 1970: 85–86 and De Zorzi 2011: 51.
45. See chapter 3, pp. 73–74, for color sequences. For series of toes and of months, see, for example, Freedman 2006: 155 and 13; for grammatical variants, Glassner 2005b: 295–96. Glassner 1984 introduced the term “pointillism” into the study of omens, and Winitzer 2006 (especially chapter 4) developed it in full.
46. Foucault 1970: 17–45. In his analysis of lexical texts, Gantzert 2011 relies heavily on Foucault’s concept of similitude. The analysis there gets bogged down in an engagement with Foucault’s different epistemes, and Gantzert tries to find traces of all of them in the lexical lists, which, I think, ignores Foucault’s fundamental idea of rupture.
47. See chapter 4, p. 89.
48. Bottéro 1992: 125–37, originally published in 1975. The quotation appears on p. 136.
49. For a similar criticism of Bottéro’s statement, see van der Toorn 1995 and Böck 1999: 424–25. The latter suggests that divinatory texts display a metaphysics.
50. Oracle reports were also common among the Hittites; see Van den Hout 2003–5.
51. See Durand 1988: 53–56 for a discussion of this material. To his list on p. 53 add nos. 100-bis and 113 and change no. 94 to 92. The passages quoted here are from nos. 96 and 117 (pp. 261 and 284). For a reference guide to the meaning of the features the diviners mention in this report and in the others I quote (such as, increment, path, and palace gate), see Koch-Westenholz 2000: 43–70. A very fragmentary text found in Syrian Terqa may be of a similar nature (Rouault 2011: 35 text 7–11).
52. The report quoted is Koch-Westenholz 2002: 134–35, who gives a list of others from this period to which are to be added those published in Richardson 2007 and George 2013, and those mentioned in Tanret 2004: 265 (13 from one archive, not yet published). See the description of the chapters of the extispicy series on page 123 of this chapter for the correspondences (cf. Nougayrol 1967: 233). Note that there is a solitary divination report from northern Mesopotamia, probably from the sixteenth century or somewhat later (Tsukimoto 1982).
53. Mayer 1987: lines 29–31. George 2013 no. 5, which also lists some apodoses, seems to be a student exercise.
54. George 2013: no. 4.
55. See Veldhuis 2006b: 488.
56. Starr 1983: 39 line 55.
57. Kraus 1985 provides an edition of these reports, unfortunately in a way that is incomprehensible to anyone not fully trained as an Assyriologist. The example quoted here is transliterated on pp. 153–54. Koch-Westenholz 2000 (81–82, 185–86, and 273–82) gives a list of correspondences between state-

ments in the reports and omens from three chapters of the extispicy series. The line “the left path lies flat against the right path,” for example, appears as the protasis of tablet 4 of chapter 3, line 47 (Koch-Westenholz 2000: 200).

58. Hunger 1992: xv.
59. This report was published as Hunger 1992: no. 183. All those excavated at Nineveh can be found in Hunger 1992 and in Parpola 1993. Fincke 2010 discusses the three celestial reports found at Assur, and mentions some other isolated examples from the first millennium. There exist a small number of reports that contain observations alone without any quotation (cf. Hunger 1992: xvii and Parpola 1993: nos. 122–27). They are almost all from a man called Nabû’a, who was active in Assur, and state that he and his colleagues monitored the visibility of the moon. They draw no conclusions except in one case (Hunger 1992: no. 71), which recommends that an apotropaic ritual be performed.
60. Hunger 1992: no. 103 line 12. For other examples, see Brown 2000: 132–36. Note also a Hittite omen text that considers impossible lunar eclipses on days from the 21st to the end of the month when the new moon appears (Riemschneider 2004: 118–19).
61. Hunger 1992: no. 98 lines 5–6. Oppenheim (1969: 123 and note 54) points out that a sign not written down was not valid.
62. For example, Parpola 1993: nos. 8, 143, 147, and 158.
63. Oppenheim 1974: 205.
64. Rochberg 2000: 372.
65. Oppenheim 1969: 118–19. See Parpola 1993: nos. 23, 51, and 72 for examples. The accusation in no. 120 that Sin-ēreš ate a malformed birth is of another order altogether and certainly very serious.
66. Tadmor et al. (1989: 11). Note that on p. 47 they stress how unusual it was to commission multiple examinations by various groups. In Neo-Assyrian times extispicy readers usually worked in teams (Robson 2011b).
67. See Koch-Westenholz 1995: 140–51 for a full analysis of the case.
68. Frahm 2004: 49.
69. See Rochberg 2004: 185–202 for many elements in this section.
70. Translation from Foster 2005: 495. The Sumerian used is highly artificial (Verderame 2002: 2). The incipits of both versions may appear in a library catalogue from around 1800 BC, although the identification is debated (see Charpin 1986: 457 note 1). Most scholars (e.g., Koch-Westenholz 1995: 77 and Maul 2003–5: 52) state that the introduction was recorded only after the middle of the second millennium. The story appears in a Hittite translation in the second half of the second millennium (Koch-Westenholz 1995: 46 note 6).
71. Starr 1983: 37 line 1.
72. Koch-Westenholz 2000: 25. Clearly the concepts of palace and king guided the equations.
73. Manetti 1993: 5.
74. Rochberg 2004: 193–96, Glassner 2012b.
75. See chapter 4, p. 96.

76. Koch 2010.
77. From the Old Babylonian story of Atrahasis; translation from Foster 2005: 251.
78. See Rochberg 2004: 181–85 for many elements in this section.
79. For Enmeduranki, see Lambert 1967 and 1998; for Adapa, Lambert 1962: 65 (Foster 2005: 525–30 translates the myth); and for Ea, Lambert 1962: 65 and Finkel 1988: 149.
80. Chapter 4, p. 106.
81. Jeyes 1989: 83–84, Koch-Westenholz 2000: 51–53.
82. I must admit my inability to understand the technical details of mathematical astronomy. For a description of the relationship between astrological and astronomical texts, see Rochberg 2011.
83. Brown 2000: 172.
84. Guinan 2002: 20.
85. Brown (2000) argues the case for a paradigm shift eloquently, but is perhaps too much guided by a modern perspective on the differences between astrology and astronomy, against which Rochberg (2004) cautions.
86. See Webster 2008.
87. Translation from Lambert 1998: 152 lines 22–37, slightly altered.
88. For *qaqqar kitti*, see Lambert 1998: 146 and for the quotes, Lambert 2007: 13 and 29. Starr 1983: 122–25 gives other Old Babylonian references. For *ina kittim u mišarim lidinu dinam*, see Starr 1983: 31 and 38 line 19.

CHAPTER 6. OF ANCIENT CODES

1. <http://www.aoc.gov/cc/art/lawgivers/index.cfm>.
2. My survey here uses Roth 1997 as its main guide. That book is a handy source for translations of Mesopotamian law codes and at the basis of those I give here, except for the Laws of Ur-Namma.
3. Civil provides a full re-edition of the text in George 2011: 221–86. My references to its contents come from Civil's publication. For the reference to Ur-Namma's reform, see chapter 7, p. 161.
4. Chapter 3, p. 71.
5. Roth 1997: 57.
6. A systematic survey of all manuscripts with extensive bibliography and ordered by date is given in Oelsner 2012: 98–111. Laessøe 1950 tries to reconstruct genealogies of the manuscript traditions.
7. Sjöberg 1991.
8. Modern discussions often state that it stood in the city Sippar, because its god was the Babylonian god of justice, Shamash. The text itself says that Hammurabi set up a stele in Babylon (Roth 1997: 133–34), and I see no reason why we should doubt that.
9. That is the opinion of Maul 2012.
10. Lambert 1989, Frahm 2011: 241–42.
11. Fadhil 1998: 726. "When the august god Anu," in Akkadian, are the first three words of the prologue and thus constitute the ancient title of the text.

The latest dated manuscript of the text, from the fourth century BC, remains unpublished; but Oelsner (2012: 108 s.v. nB 8) reports that it contains a copy of §§ 53–101.

12. Petschow 1965a.
13. I am not convinced by Roth's interpretation (2002) that this refers to a man who had already been tried, and had to "find solace only through prayer and by offering blessings to (the memory of) King Hammurabi." It would be a rather poor message to send out to one's subjects that unjust legal verdicts were possible and that the only recourse was consolation after praying to the king.
14. Roth 1997: 144. Roth (1989: 29 note 89) conclusively refutes the claim that the king who commissioned the laws was Assurbanipal, as some scholars have suggested (e.g., Saporetti 1984: 12). She dates the manuscript to the early seventh century (1997: 144), but that seems too specific. Most scholars date it to the Neo-Babylonian period in general, i.e., the seventh and sixth centuries.
15. Lambert 1965.
16. Two paragraphs appear on two distinct tablets, MAL B 1 = MAL O 3 and MAL B 17 = MAL O 5.
17. The manuscript is kept with Neo-Assyrian Nineveh tablets in its modern-day location, but that may be the result of a recent mix-up (Postgate 1973: 21).
18. Assmann 1994.
19. See Imparati 1964: 14–32 for the manuscripts. Hoffner (in Roth 1997: 214–15) discusses the dating of the Hittite laws. His detailed analysis (Hoffner 1997: 229–64) shows how hard it is to do so exactly (cf. Haase 2003: 621).
20. Frymer-Kenski 2003: 975–78.
21. Westbrook 1994: 15.
22. *Eshnunna* §§ 53–55, *Hammurabi* §§ 250–252, and *Exodus* 21:28–36, where the sequence is interrupted by a single provision about the ox as the victim of negligence. See Finkelstein 1981: 20–21 for translations of the passages.
23. See Wright 2009: 16–24 for a survey of opinions. He argues for direct written inspiration during the Neo-Assyrian Empire even within the details of individual laws.
24. Westbrook 1988: 103–5.
25. Westbrook 1988 sees Rome's Twelve Tables as closely related to Near Eastern laws, while Gargarin 2008 rejects the idea of any Near Eastern influences on early Greek law.
26. Westbrook 1989, Gargarin 2000.
27. Carey 1992. The quotation is usually considered a later insertion by an editor, but still a genuine law (Patterson 2005: 288).
28. Gargarin 2008: 190.
29. Glenn 2007: 93.
30. Schwyter 1998.
31. Drew 1991: 68–69.

32. Wormald 1999: 33.
33. Chapter 5, p. 136.

CHAPTER 7. THE PHILOSOPHER-KING

1. Finkelstein 1981.
2. Yaron 1988: 91–93.
3. See chapter 3, pp. 72–73. The passage referred to here is edited in Landsberger 1937: 101–3.
4. Roth 1997: 40–54.
5. Streck 2006–8: 284.
6. The most authoritative grammar of the Akkadian language states that the present tense is required in translation although the Akkadian uses a past tense (von Soden 1969: 212–13), but translators regularly render the verbs as in the past (e.g., Charpin 2003: 213, Finet 1973, Pritchard 1969: 163–80). The present tense allows for the laws to apply to events in the future (Streck 1998: 304–5). The question of time as indicated in Akkadian verbs, including in laws and omen lists, has stimulated a large literature, cf. Metzler 2002. Important for the discussion here is that there was a temporal succession between what happened in the protasis and its result in the apodosis.
7. Finet 1973: 111 § 186.
8. The translations of the Hittite laws I use here are from Hoffner 1997; see also his contribution to Roth 1997.
9. Civil in George 2011: 251–52 and 284–85.
10. Civil in George 2011: 251 § E2.
11. Gadd 1948: 79.
12. Daube 1956, 1981: 72–74.
13. Petschow 1965b.
14. Yaron 1988: 96–97. For an English translation of the treaty's passage, see Milano 1995: 1228.
15. Schwyter 1998.
16. In particular, the rich Old Babylonian material has been examined for this purpose; see, for example, Renger 1994, Charpin 2005: 95–97 = 2010b: 79–89, and Stol 2004: 657–58 for further bibliography. Bottéro's (1992: 166) optimistic statement, "If all the archives of the long reign of Hammurabi would have been preserved, it is beyond a doubt that we could have found in them the origin and source of a number of verdicts compiled in his 'Code,' " is misjudged. For a critique of this practice on different grounds, see Richardson 2012: 34.
17. Finkelstein 1981: 34.
18. See Saggs 1988, 184–87 for an attempt at systematizing the laws of Hammurabi. Korošec 1964: 86 called the ancient organization primitive, and Finkelstein 1981: 22 note 2 lists other modern criticisms.
19. Finkelstein 1967, Roth 1997: 75–76, Oelsner 2012: 83–85.
20. Streck 2006–8.
21. Oelsner (2012) argues that the internal structure of Hammurabi's code was

- clear from the moment of composition and that it was known and preserved throughout the long manuscript tradition.
22. Eichler (1987), who was the first to consider patterns of this kind seriously, called this the principle of juxtaposition.
 23. As said before, I borrow the term from Glassner (1984) and Winitzer (2006), who applied it to the study of omens. In the study of law, Eichler (1987) referred to the process of “maximum variation” and Finkelstein (1981: 34) to “the principle of gradation” to express a similar concept.
 24. Petschow 1965a and 1968, Westbrook 1999.
 25. The earlier Laws of Ur-Namma contain a partly preserved list of body parts including different bones, nose, skull, eye, and tooth (§§ 17–24, George 2011: 247).
 26. Bottéro 1992: 175–77 questions the likelihood that goats were ever used in threshing.
 27. André-Salvini 2008: 13–14.
 28. It is clear from the ninth-century palace of Assurnasirpal II at Kalhu that stone carvers took the size of the object they inscribed into account. There the so-called Standard Inscription was commonly abbreviated to fit a surface (Russell 1999: 39, 53–54). But that situation is different, in that in the case of the Standard Inscription the integrity of the text was not preserved, and the cut-off was sometimes in mid-sentence.
 29. Hoffner 1997: 13.
 30. Scheil 1902: 111–62.
 31. See Westbrook 1985 for a survey of the debate and Stol 2004: 655–58 for bibliography. I rely here mostly on Bottéro 1992: 161–64, Renger 1994, and Westbrook 1989. Dion 2001 urges the discipline to stop focusing on this issue.
 32. See Eilers 1932: 8 for fines; Westbrook 1985: 257 for discrepancies in concerns regarding dowries and bride gifts.
 33. See page 161 in this chapter, and Hoffner 1997: 5–7.
 34. Drew 1991: 50–51.
 35. Koch 2005: 197.
 36. See chapter 3, pp. 61–62.
 37. See Veenhof 1997–2000.
 38. Westbrook 1989.
 39. Westenholz 1999: 44–45.
 40. An alternative translation is “may he read aloud my inscribed stele.” The uncertainty in the translation of such a basic and much-studied text may seem surprising, but that is the nature of translation. Today, most scholars interpret the verb literally as “cause to be read out.” However, the same verbal form appears in contexts where there is only one person present, and it is not unimaginable that readers would have spoken the words aloud to themselves. For this problem, see Charpin 2005: 100–1 (English edition 2010b: 77–78), who argues for the alternative translation.
 41. Oppenheim et al. 1971: 470–71. Maul 1998 discusses the twin concepts in Assyrian texts.
 42. See Bottéro 1992: 182 (honesty and justice), Saporetti 1998: 161 (*equità e*

- giustizia), and Borger 1982: 44 and Cancik-Kirschbaum 1999: 61–62 (Recht und Gerechtigkeit).
43. Oppenheim et al. 1971: 469. Glassner 2012b: 42 also stresses “truth” in Hammurabi’s statement.
 44. Foster 2005: 478.
 45. Van De Mierop 2011a.
 46. Lambert 1989: 97. Quotations from Hammurabi’s code appear in commentaries on medical and lexical texts (Frahm 2011: 101).
 47. Chapter 4, pp. 104–6.
 48. See Parpola 1993: no. 155 for reference to the ancient tablet, Van De Mierop 2005: 131 for the eye salve.
 49. For example, Westbrook 1988.
 50. See chapter 5, p. 14.
 51. Bahrani 2007.
 52. E.g., Kienast 1994, Lafont 1994, Lemche 1994–95, Wilcke 2003: 11–17.
 53. Cf. Goody 1986: 127–70.
 54. Postgate 1984: 15.
 55. E.g., Janssen et al. 1994.
 56. Michel 2000: 135–39.
 57. Van De Mierop 1992: 207.
 58. Gelb et al. 1991. The oldest are the so-called Blau monuments, which seem to date to around 3000–2900.
 59. For a survey of the loan document, see Van De Mierop 2002.
 60. See, for example, Wilcke 2003: 76 (*aide-mémoire*), and Lafont & Westbrook 2003: 196 (of secondary importance).
 61. Falkenstein 1956, vol. II: no 205:27–42, translation after Wilcke 1998: 50–51. For other examples, see Falkenstein 1956, vol. I: 72–73.
 62. E.g., *Hammurabi* §§ 7, 122, and 123; cf. Sallaberger 2010: 52–53.
 63. Reiner 2006: 163–64.
 64. Translation after Pritchard 1969: 543–44. I have added information in square brackets to clarify the terse record, and use italics to point out uncertain translations.
 65. E.g., an Old Babylonian trial record reports that witnesses could no longer remember the size of a dowry (Charpin 2013: 344).
 66. Foster 2005: 215–16.

CHAPTER 8. BABYLONIAN EPISTEMOLOGY IN HISTORY

1. Translation from Livingstone 1997, slightly adapted based on Oppenheim et al. 1956: 160.
2. For a brief history of western hermeneutics, see Ramberg and Gjesdal 2009.
3. Chapter 5, pp. 126–27.
4. Diogenes Laertius, *Lives of Eminent Philosophers* 7.1 Zeno 52–53. Translation from Hicks 1931: 160–63.
5. Sjöberg 1972: 26 line 12; translation after Foster 2005: 1023.
6. For scholars who avow an empirical basis for divination and those who reject that idea, see chapter 5, note 15. Saggs (1988: 405–6) asserts that all

Babylonian science was empirical, including mathematics, an idea he seems to derive from the absence of formal proof in mathematical texts. Many scholars have pointed out the lack of theorems, axioms, or explicit proofs in these texts (e.g., Aaboe 1964: 29, Robson 2008: 90), but I do not see why that demonstrates empiricism as the basis of the system behind them. Selz 2011 uses the term “empirical” not in opposition to “rational,” but in contrast to divine revelation.

7. Bottéro 1992: 125–37 gives a positive interpretation to the extrapolation of cases into the unreal in Babylonian lists, Limet 1982 a very negative one.
8. Many such exercises are published in Neugebauer & Sachs 1945. For an example with an explanation of the mathematics, see Robson 2008: 89–90.
9. For the diaries, see Rochberg (2011: 629–33), who points out that their purpose was not divinatory. That theoretical principles guided the observation contained in them was shown by Graßhoff 2011, who otherwise argues the opposite of my ideas.
10. Maul 2013: 64–100.
11. Glassner 2012b: 55.
12. Chapter 1, p. 17.
13. Lambert 1976.
14. Chapter 4, p. 97.
15. Rochberg 2004: 215.
16. Richardson 2010b.
17. Adams 2009.
18. Chapter 2, pp. 43–45.
19. Some of these developments are described in Van De Mierop in press B.
20. Chapter 4, pp. 100–101.
21. Charpin 2012, with further bibliography.
22. See chapter 3, pp. 82–83.
23. For Babylonian teachers abroad, see Beckman 1983, Cohen 2004, and van Soldt 2011: 197–99. Lenzi 2008a is a book-length study of the secrecy in Mesopotamian writings. He concludes that there was indeed a corpus whose access was restricted, but this was a first-millennium concern. More recently, Stevens (2013) has shown that even then texts were declared to be secret in order to protect their integrity as works of scholarship. Specialists who used these texts did not want them to be hidden from others, but wanted guarantees that they had access to reliable manuscripts.
24. See chapter 2, pp. 47–48, and chapter 4, pp. 102–4.
25. See Civil 2004: 5 for Syrian versions of the lexical text entitled *Diri*, which are based on manuscripts from Late Old Babylonian Sippar. Cohen (2009: 141–43) showed clear Late Old Babylonian characteristics in omen texts from later-second-millennium Emar in Syria. Likewise, Old Babylonian conventions are clear in purely literary texts found at Syrian Ugarit and Emar, and Akhetaten in Egypt (Kämmerer 1998).
26. For the text and its copies and translations, see Riemschneider 2004: xxxiii and 5–6. Koch-Westenholz (1995: 37 note 5) thinks that the Hittite Mursili I, who sacked Babylon in 1595, took the tablet with him, but it could equally well have been brought to Hattusas earlier on.

27. Van den Hout 2008.
28. The suggestion in Hallo & Simpson 1998: 103 that Nippur remained a center of learning in the Dark Age is based on tenuous evidence. For the survival of northern Mesopotamian cities throughout the Dark Age, see Matney 2012: 569.
29. See, for example, Peterson 2006 for close correspondences between Nippur, Nuzi, and Emar lexical materials.
30. For the concept of Babylonian cosmopolitanism, see Van De Mieroop in press A. A discussion of the treatment of different text genres at Hattusas is Klinger 2005.
31. For examples of syllabic Sumerian columns, see Landsberger et al. 1955: 63–64, Civil 1969: 214–19, Cavigneaux et al. 1985: 117–18, and Civil et al. 1986: 36–38. The series called *erimḫuš* = *anantu* was intended as a guide to translate into Sumerian (Klinger 2005: 111). A prism from Hattusas inscribed with a Sumerian grammatical text is published by Civil et al. 1986: 90. On Hattusas scribes and Babylonian lexicography in general, see Veldhuis 2014a.
32. For these adaptations, see Riemschneider 2004: xli–l.
33. See Beckman 2003 for a detailed analysis of the Hittite renderings of *Gilgamesh*. Klinger 2005 provides a more technical study and shows resemblances with the Hurrian version.
34. Wiggermann 2008.
35. Translation after Foster 2005: 315 and an unpublished manuscript of Peter Machinist.
36. Weidner 1952–53, who was the first to put these tablets together, argued it was a royal library, while Pedersén 1985: 31–42 among others thinks that it was for private use by scribes. Heeßel 2011a suggests the compromise solution that it was not a library of the kind Assurbanipal collected in the seventh century, but a scriptorium where texts were produced according to certain set standards. He gives a full bibliography on the debate.
37. Horace, *Epistles* 2.1, lines 156–57.
38. See Hunger 1968: 30–34.
39. Heeßel 2010: 154.
40. See chapter 4, pp. 104–5.
41. See chapter 1, note 59, and chapter 2, p. 50.
42. See Heeßel 2011a and 2011b for the Assyrian treatment of divinatory series and their rejection of Esagil-kīn-apli's work. For Ahiqar, see Vanderkam 1992.
43. Other cases could be considered, for example, medicine; see Geller 2004 and 2010.
44. Detienne 1988: esp. 31–35.
45. Willetts 1967: 40. An *apetairos* was a free man but not a citizen.
46. Relying primarily on Orientalist stereotypes, Gargarin (2008: 145–75) rejects the idea that Near Eastern examples could have inspired Gortyn's laws. He claims that more people understood Greek alphabetic writing than Babylonian cuneiform and that the Gortyn wall was more accessible than Hammurabi's stele. Moreover, he states that “the non-authoritarian and inclusive

nature of Greek social and political structures in oligarchic and democratic poleis alike” had to produce radically different laws than the despotic Orient. As I am looking at form rather than content of the laws, these considerations are immaterial to me here. Westbrook 1989 finds prescriptive legislation in Gortyn’s laws.

47. Translation from Warren & Scully 1995: 37 lines 425–26.
48. See Sokolowski 1955: 84–86 no. 30 for the Greek text. The translation here, which is uncertain, is based on Flower 2008: 33 note 34. Note that in this text the movement from right to left is considered auspicious, while in Greek custom the opposite was usually the case (Lloyd 1991: 37). In the Babylonian terrestrial omen series *šumma ālu*, it is also a positive omen when an animal crosses from the right to the left (Guinan 1996: 9).
49. Flower 2008. Vernant 1974 stresses the oral character of Greek divination.
50. Canali de Rossi 2004: 47–86.
51. Chapter 1, p. 3.
52. For a survey of the written evidence, see Clancier 2009: 25–103 for Uruk, and Boiy 2004: 13–54 and Clancier 2009: 105–213 for Babylon. Clancier 2011 suggests that Babylonian scholars supported Greek rule; this is not the opinion of most specialists, however, who believe that there was benign neglect.
53. Cf. chapter 1, p. 22.
54. Sherwin-White & Kuhrt 1993: 149–61, Oelsner 2002, Boiy 2004: 288–303.
55. See chapter 2, pp. 52–53.
56. Canali de Rossi 2004: nos. 117–19, 123.
57. Momigliano 1975: 8–11.
58. De Breucker 2011 provides a recent overview of Berossos and his work. See Oelsner 2002 and McCants 2012: 95 for the intentions of his work.
59. Translation by A. Leo Oppenheim in Pritchard 1969: 317. See Kuhrt & Sherwin-White 1991 for a discussion of traditional Babylonian elements and non-Babylonian features. The most recent treatments of the text (Beaulieu 2014 and Stevens 2014) still disagree on the relative importance of Greek and Babylonian characteristics.
60. Glassner 2004: 240–57.
61. Sherwin-White & Kuhrt 1993: 216.
62. Canali de Rossi 2004: no. 107.
63. Cf. chapter 2, pp. 23–24.
64. Goldstein 2010.
65. Beaulieu 2006.
66. See McCants 2012: 91–92 for a summary of the debate.
67. Brown 2008 gives an excellent survey of the material and suggests this interpretation. See also Cooper 2008 for further thoughts.
68. The issue is complex and much debated. I refer to my own brief summary, Van De Mieroop 2011b: 332–36, for further readings.
69. *Metaphysics* 981b.
70. Vlassopoulos 2013. He is more ready to see Greek-Babylonian cultural exchange than I am.
71. See Bahrani 1996 for hybridity in the visual arts. A wide-ranging examina-

tion that stresses survivals and borrowings is Dalley 1998. Lloyd 1991: 278–98 is more reserved and is restricted to the sciences.

CHAPTER 9. THE CONCEPTUAL AUTONOMY OF BABYLONIAN EPISTEMOLOGY

1. The text was first published in the journal *Islamica* (volume 2, 1926: 355–72) as part of an anniversary volume in honor of August Fischer. Combined with an article by W. von Soden, it was reprinted in 1965 and 1974 as a book. An English translation by T. Jacobsen, B. Foster, and H. von Siebenthal appeared in 1976. Michalowski 1996: 177 suggests the translation “cultural individuality” for *Eigenbegrifflichkeit*.
2. The Bible-Babel controversy keeps on generating a stream of scholarship. For an accessible discussion in English, see Larsen 1995. Oppenheim (1977: 334) points out that most scholars only pay lip service to the concept *Eigenbegrifflichkeit*.
3. The statement was quoted by his University of Chicago colleague Erica Reiner (2002: 9).
4. Von Soden 1936, 1960, and 1973.
5. Von Soden 1973: 37–38. Historians of ancient Greece who like to uphold the idea of Oriental despotism have eagerly adopted this notion—for example, Finley (1985: 28).
6. In Mesopotamian studies, Frankfort, quoting Landsberger 1926 in a footnote (1952: 198), used the differences between the Sumerian and Akkadian languages to explain the cultural distinctions between the people who spoke them, a delusion that continues to haunt the discipline (e.g., Westenholz 1993 and 1999: 26 note 24). On the other hand, F. R. Kraus, a student of Landsberger and a vocal advocate of the idea that all comparison in cultural study is misleading, flatly dismissed the heuristic value of linguistic determinism (1973: 14–15).
7. Sapir 1929: 209.
8. Von Soden 1973: 32–33.
9. As demonstrated by Streck (2003).
10. For the intellectual context of Landsberger’s *Eigenbegrifflichkeit* lecture, see Sallaberger 2007. Fink 2014 reviews the use of Whorf’s linguistic determinism in Near Eastern scholarship and rejects its applicability to the Sumerian language. For a general refutation of Whorfian theory, see Pinker 2007: 124–51.
11. *Enūma eliš* VI 121–22, translation from Foster 2005: 472.
12. Eco 2009. Belknap 2004, on lists in nineteenth-century American literature, seems to have initiated this surge in scholarship. That book contains a nice survey on the nature of lists in European and American literature (pp. 1–35).
13. Chapter 3, pp. 74–75.
14. Translation from Foster 2005: 769. For *ubi sunt* poems, see Belknap 2004: 25–27.
15. Von Soden 1936, cf. chapter 3, p. 65.
16. These quotes are from Larsen 1987: 211; Westbrook 2000: 36 (cf. Westbrook

1988); and Limet 1982. In a very insightful article Cancik-Kirschbaum (2010) eloquently rejects evaluations of this kind and shows how the ancient Mesopotamians had scientific thought.

17. Deleuze & Guattari 1987: 3–25. In his article on lexical texts, Hilgert (2009) also mentions the concept of the rhizome with reference to Deleuze and Guattari.
18. Bredekamp 2006.

Bibliography

- Aaboe, Asger. 1964. *Episodes from the Early History of Mathematics*. Washington, DC: The Mathematical Association of America.
- . 1991. “Babylonian Mathematics, Astrology and Astronomy.” *The Cambridge Ancient History*, second ed., vol. 3/2: 276–92. Cambridge: Cambridge University Press.
- Adams, Robert McC. 2009. “Old Babylonian Networks of Urban Notables.” *CDLJ* 2009/7. URL: <http://cdli.ucla.edu/pubs/cdlj/2009/cdlj2009.007.html>.
- Afanasjeva, V. 1974. “Mündliche überlieferte Dichtung (“Oral Poetry”) und schriftliche Literatur in Mesopotamien.” *Acta Antiqua Academiae Scientiarum Hungaricae* 22: 121–35.
- al-Rawi, Farouk N. H. 1994. “Texts from Tell Hadad and Elsewhere.” *Iraq* 56: 35–43.
- al-Rawi, Farouk N. H., and George, A. R. 2006. “Tablets from the Sippar Library. XIII. *Enūma Anu Ellil* XX.” *Iraq* 68: 23–57.
- Ambos, C., and Schmidt-Colinet, C. 2006–8. “Sänger, Sängerin.” *Reallexikon der Assyriologie* 11: 499–506. Berlin and New York: Walter de Gruyter.
- André-Salvini, Béatrice. 2008. *Le Code de Hammurabi*, new edition. Paris: Musée du Louvre.
- Annus, Amar. 2010. “On the Beginnings and Continuities of Omen Sciences in the Ancient World.” In *Divination and Interpretation of Signs in the Ancient World* (Oriental Institute Seminars 6), edited by Amar Annus, 1–18. Chicago: Oriental Institute of the University of Chicago.
- Arcari, Elena. 1983. “Sillabario di Ebla e ED Lu A: Rapporti intercorrenti tra le due liste.” *Oriens Antiquus* 22: 167–78.
- Archi, Alfonso. 1987. “The ‘Sign-list’ from Ebla.” *Eblaitica* 1: 91–113.
- Assmann, Jan. 1994. “Zur Verschriftung rechtlicher und sozialer Normen im Alten Ägypten.” In *Rechtskodifizierung und soziale Normen im interkulturellen Vergleich*, edited by H.-J. Gehrke, 63–85. Tübingen: Gunter Narr Verlag.
- Bahrani, Zainab. 1995. “Assault and Abduction: The Fate of the Royal Image in the Ancient Near East.” *Art History* 18: 363–82.
- . 1996. “The Hellenization of Ishtar: Nudity, Fetishism, and the Production of Cultural Differentiation in Ancient Art.” *Oxford Art Journal* 19: 3–16.
- . 2003. *The Graven Image: Representation in Babylonia and Assyria*. Philadelphia: University of Pennsylvania Press.
- . 2007. “The Babylonian Visual Image.” In *The Babylonian World*, edited by Gwendolyn Leick, 155–70. New York and London: Routledge.

- Bakhtin, Mikhail. 1984. *Rabelais and His World*. Translated by Hélène Iswolsky. Bloomington: Indiana University Press.
- Barthes, Roland. 1977. *Image Music Text*. Translated by Stephen Heath. London: Fontana Press.
- . 1984. *Writing Degree Zero and Elements of Semiology*. Translated by Annette Lavers and Colin Smith. London: J. Cape.
- Beaulieu, Paul-Alain. 2000. "The Descendants of Sîn-lêqe-unninni." In *Assyriologica et Semitica: Festschrift für Joachim Oelsner*, edited by J. Marzahn and H. Neumann (Alter Orient und Altes Testament 252), 1–16. Münster: Ugarit-Verlag.
- . 2006. "De l'Esagil au Mouseion: L'organisation de la recherche scientifique au IV^e siècle avant J.-C." In *La transition entre l'empire achéménide et les royaumes hellénistiques (vers 350–300 av. J.-C.)*, edited by Pierre Briant and Francis Joannès, 17–36. Paris: Éditions de Boccard.
- . 2010. "The Afterlife of Assyrian Scholarship in Hellenistic Babylonia." In *Gazing on the Deep: Ancient Near Eastern and Other Studies in Honor of Tzvi Abusch*, edited by J. Stackert, B. N. Porter, and D. P. Wright, 1–18. Bethesda, MD: CDL Press.
- . 2014. "Nabû and Apollo: The Two Faces of Seleucid Religious Policy." In *Orient und Okzident in hellenistischer Zeit*, edited by Friedhelm Hofmann and Karin Stella Schmidt, 13–30. Vaterstetten: Verlag Patrick Brose.
- Beckman, Gary. 1983. "Mesopotamians and Mesopotamian Learning at Hattusha." *Journal of Cuneiform Studies* 35: 97–114.
- . 2003. "Gilgamesh in Hatti." In *Hittite Studies in Honor of Harry A. Hoffner, Jr.*, edited by Gary Beckman et al., 37–57. Winona Lake, IN: Eisenbrauns.
- . 2008. "A Small Town in Late Bronze Age Syria." *Zeitschrift für Assyriologie* 98: 211–20.
- Belknap, Robert E. 2004. *The List: The Uses and Pleasures of Cataloguing*. New Haven, CT: Yale University Press.
- Bilbija, Jovan. 2008. "Interpreting the Interpretation: Protasis-Apodosis-Strings in the Physiognomic Omen Series *Šumma alamdimmû*." In *Studies in Ancient Near Eastern World View and Society Presented to Marten Stol*, edited by R. J. van der Spek, 19–27. Bethesda, MD: CDL Press.
- Biggs, Robert D. 1980–83. "Lebermodelle A. Philologisch." *Reallexikon der Assyriologie* 6: 518–21. Berlin and New York: Walter de Gruyter.
- Biggs, Robert D., and Matthew W. Stolper. 1983. "A Babylonian Omen Text from Susiana." *Revue d'Assyriologie* 77: 155–62.
- Black, Jeremy A. 2004. *Sumerian Grammar in Babylonian Theory*, second revised edition. Rome: Editrice Pontificio Istituto Biblico.
- Black, Jeremy, Graham Cunningham, Eleanor Robson, and Gábor Zólyomi. 2004. *The Literature of Ancient Sumer*. Oxford: Oxford University Press.
- Böck, Barbara. 1999. "Babylonische Divination und Magie als Ausdruck der Denkstrukturen des altesopotamischen Menschen." In *Babylon: Focus mesopotamischer Geschichte, Wiege früher Gelehrsamkeit, Mythos in der Moderne*, edited by J. Renger (CDOG 2), 409–25. Saarbrücken: SDV.
- . 2000. *Die babylonisch-assyrische Morphoskopie* (Archiv für Orientforschung Beiheft 27). Vienna: Institut für Orientalistik der Universität Wien.

- Boisson, Claude, Pablo Kirtchuk, and Henri Bejoint. 1991. "Aux origines de la lexicographie: Les premiers dictionnaires monolingues et bilingues." *International Journal of Lexicography* 4: 261–315.
- Boiy, T. 2004. *Late Achaemenid and Hellenistic Babylon* (Orientalia Lovaniensia Analecta 136). Louvain: Uitgeverij Peeters.
- Borger, Rykle. 1982. "Akkadische Rechtsbücher." In *Rechts- und Verwaltungsurkunden* (Texte aus der Umwelt des Alten Testaments Band I/1), 32–95. Gütersloh: Gütersloher Verlagshaus Gerd Mohn.
- Borges, Jorge Luis. 1975. *Other Inquisitions 1937–1952*, translated by Ruth L.C. Simms; introduction by James E. Irby. Austin: University of Texas Press.
- Bottéro, Françoise. 2000. "Du découpage du monde à l'analyse des graphies—Comment classe-t-on les caractères dans les dictionnaires chinois." *Equinoxe* (Kyoto, Japan) 17–18: 110–18.
- Bottéro, Jean. 1974. "Symptômes, signes, écritures en Mésopotamie ancienne." In *Divination et rationalité*, edited by J. P. Vernant, 70–196. Paris: Éditions du Seuil.
- . 1977. "Les noms de Marduk, l'écriture, et la 'logique' en Mésopotamie ancienne." In *Essays on the Ancient Near East in Memory of Jacob Joel Finkelstein*, edited by Maria de Jong Ellis, 5–28. Hamden, CT: Archon Books.
- . 1985. *Mythes et rites de Babylone*. Geneva and Paris: Slatkine—Champion.
- . 1992. *Mesopotamia: Writing, Reasoning, and the Gods*, translated by Z. Bahrani and M. Van De Mieroop. Chicago: University of Chicago Press.
- Bredekamp, Horst. 2006. *Darwins Korallen: Die frühen Evolutionsdiagramme und die Tradition der Naturgeschichte*, second edition. Berlin: Klaus Wagenbach.
- Brinkman, J. A. 1998–2001. "Nabopolassar." *Reallexikon der Assyriologie* 9: 12–16. Berlin and New York: Walter de Gruyter.
- Brisch, Nicole, ed. 2008. *Religion and Power: Divine Kingship in the Ancient World and Beyond* (Oriental Institute Seminars 4). Chicago: Oriental Institute of the University of Chicago.
- Brown, David. 2000. *Mesopotamian Planetary Astronomy-Astrology*. Leiden: Brill.
- . 2006. "Astral Divination in the Context of Mesopotamian Divination, Medicine, Religion, Magic, Society, and Scholarship." *East Asian Science, Technology, and Medicine* 25: 69–126.
- . 2008. "Increasingly Redundant: The Growing Obsolescence of the Cuneiform Script in Babylonia from 539 BC." In *The Disappearance of Writing Systems: Perspectives on Literacy and Communication*, edited by John Baines, John Bennet, and Stephen Houston: 73–101. London: Equinox.
- Buccellati, Giorgio. 1993. "Through a Tablet Darkly: A Reconstruction of Old Akkadian Monuments Described in Old Babylonian Copies." In *The Tablet and the Scroll: Near Eastern Studies in Honor of William W. Hallo*, edited by M. E. Cohen et al., 58–71. Bethesda, MD: CDL Press.
- Burkert, Walter. 2008. "Prehistory of Presocratic Philosophy in an Orientalizing Context." In *The Oxford Handbook of Presocratic Philosophy*, edited by P. Curd and D. W. Graham, 55–85. Oxford: Oxford University Press.
- Canali de Rossi, Filippo. 2004. *Iscrizioni dello estremo oriente greco: Un repertorio* (Inscriptions griechischer Städte aus Kleinasien, Band 65). Bonn: Habelt.
- Cancik-Kirschbaum, Eva. 1999. " 'König der Gerechtigkeit'—ein altorientalisches

- Paradigma zu Recht und Herrschaft." In *Torah—Nomos—Ius*, edited by Gesine Palmer et al., 52–68. Berlin: Verlag Vorwerk.
- . 2010. "Gegenstand und Methode: Sprachliche Erkenntnistekniken in der keilschriftlichen Überlieferung Mesopotamiens." In *Writings of Early Scholars in the Ancient Near East, Egypt, Rome, and Greece: Translating Ancient Scientific Texts*, edited by Annette Imhausen and Tanja Pommerening (Beiträge zur Altertumskunde, Band 286), 13–46. Berlin and New York: Walter de Gruyter.
- Carey, Christopher (ed. and trans.). 1992. *Apollodoros against Neaira (Demos-thenes) 59*. Warminster: Aris & Phillips Ltd.
- Cavigneaux, Antoine. 1980–83. "Lexikalische Listen." *Reallexikon der Assyriologie* 6: 609–41. Berlin and New York: Walter de Gruyter.
- . 1981. *Textes scolaires du Temple de Nabû ša harê* (Texts from Babylon I). Baghdad: State Organization of Antiquities & Heritage.
- . 1989. L'écriture et la réflexion linguistique en Mésopotamie." In *Histoire des idées linguistiques*. Vol. 1: *La naissance des métalangages en Orient et en Occident*, edited by Sylvain Auroux, 99–118. Liège: Pierre Mardaga.
- . 1996. *Uruk: Altbabylonische Texte aus dem Planquadrat Pe XVI- 4* (Ausgrabungen in Uruk Warka: Endberichte, vol. 13). Mainz: Philipp Von Zabern.
- . 2014. "Une version sumérienne de la légende d'Adapa (Textes de Tell Haddad X)." *Zeitschrift für Assyriologie* 104: 1–41.
- Cavigneaux, Antoine, and Laurent Colonna d'Istria. 2009. "Les découvertes épigraphiques des fouilles récentes de Mari. État des recherches en janvier 2009." *Studia Orontica* 6: 51–68.
- Cavigneaux, Antoine, Hans Güterbock, Martha Roth, Gertrude Farber, Miguel Civil, Oliver Gurney, and Douglas Kennedy. 1985. *MSL XVII: The Series Erim-huš = anantu and An-ta-gál = šaqû*. Rome: Pontificium Institutum Biblicum.
- Charpin, Dominique. 1986. *Le clergé d'Ur au siècle d'Hammurabi*. Geneva and Paris: Librairie Droz.
- . 2003. *Hammu-rabi de Babylone*. Paris: Presses Universitaires de France.
- . 2005. "Le statut des 'codes de lois' des souverains babyloniens." In *Le législateur et la loi dans l'Antiquité: Hommage à Françoise Ruzé*, edited by P. Sineux, 93–108. Caen: Presses Universitaires de Caen.
- . 2010a. *Reading and Writing in Babylon*. Cambridge, MA: Harvard University Press.
- . 2010b. *Writing, Law, and Kingship in Old Babylonian Mesopotamia*. Chicago: University of Chicago Press.
- . 2012. "Mari à l'école d'Ešnunna: Ecriture, langue, formulaires." *Altorientalische Studien zu Ehren von Pascal Attinger*, edited by Catherine Mittermayer and Sabine Ecklin (Orbis Biblicus et Orientalis 256), 119–37. Freiburg: Academic Press; Göttingen: Vandenhoeck & Ruprecht.
- . 2013. "L'historien de la Mésopotamie et ses sources: Autour du Code de Hammu-rabi." *Journal Asiatique* 301: 339–66.
- Chiera, Edward. 1929. *Sumerian Lexical Texts from the Temple School of Nippur* (Oriental Institute Publications 11). Chicago: University of Chicago Press.

- . 1938. *They Wrote on Clay*. Chicago: University of Chicago Press.
- Civil, Miguel. 1969. *MSL XII: The Series lú = ša and Related Texts*. Rome: Pontificium Institutum Biblicum.
- . 1975. "Lexicography." In *Sumerological Studies in Honor of Thorkild Jacobsen*, edited by Stephen Lieberman (Assyriological Studies 20), 123–57. Chicago: University of Chicago Press.
- . 1976. "Enlil, the Merchant: Notes to CT 15 10." *Journal of Cuneiform Studies* 28: 72–81.
- . 1979. *MSL XIV: Ea A = nâqu, Aa A = nâqu, with their Forerunners and Related Texts*. Rome: Pontificium Institutum Biblicum.
- . 1985. "Sur les 'livres d'écolier' à l'époque paléo-babylonienne." In *Miscellanea Babylonica*, edited by J.-M. Durand and J.-R. Kupper, 67–78. Paris: ERC.
- . 1987a. "KBo 26 53 and Funerary Personnel." *NABU* 1987/9.
- . 1987b. "Feeding Dumuzi's Sheep: The Lexicon as a Source of Literary Inspiration." In *Language, Literature, and History: Philological and Historical Studies presented to Erica Reiner*, edited by Francesca Rochberg-Halton, 37–55. New Haven: American Oriental Society.
- . 1989. "The Texts from Meskene-Emar." *Aula Orientalis* 7: 5–25.
- . 1994. *The Farmer's Instructions: A Sumerian Agricultural Manual*. Barcelona: Editorial AUSA.
- . 1995. "Ancient Mesopotamian Lexicography." In *Civilizations of the Ancient Near East*, edited by Jack M. Sasson, 2305–14. New York: Charles Scribner's Sons.
- . 2004. *MSL XV. The Series DIRI = (w)atru*. Rome: Pontificium Institutum Biblicum.
- . 2009. "The Mesopotamian Lexical Lists: Authors and Commentators." In *Reconstruyendo el pasado remoto; Estudios sobre el P.O.A. en homenaje a Jorge R. Silva Castillo*, edited by D. A. Barreyra and G. del Olmo Lete (Aula Orientalis Supplementa 25), 63–69. Barcelona: AUSA.
- . 2010. *The Lexical Texts in the Schøyen Collection* (CUSAS 12). Bethesda, MD: CDL Press.
- Civil, Miguel, Oliver Gurney, and Douglas Kennedy. 1986. *The Sag-tablet: Lexical Texts in the Ashmolean Museum. Middle Babylonian Grammatical Texts (MBGT): Miscellaneous Texts* (MSL SS 1). Rome: Pontificium Institutum Biblicum.
- Civil, Miguel, and Hans Güterbock. 1971. *MSL XIII: Izi = išātu, Ká-gal = abullu, and Níg-ga = makkūru*. Rome: Pontificium Institutum Biblicum.
- Civil, Miguel, and Gonzalo Rubio. 1999. "An Ebla Incantation against Insomnia and the Semiticization of Sumerian. Notes on ARET 5 8b and 9." *Orientalia* 68: 254–66.
- Clancier, Philippe. 2009. *Bibliothèques en Babylonie dans la deuxième moitié du 1er millénaire* (Alter Orient und Altes Testament 363). Münster: Ugarit Verlag.
- . 2011. "Cuneiform Culture's Last Guardians: The Old Notability of Hellenistic Uruk." In *The Oxford Handbook of Cuneiform Culture*, edited by

- Karen Radner and Eleanor Robson, 752–73. Oxford and New York: Oxford University Press.
- Clay, Albert T. 1923. *Epics, Hymns, Omens, and Other Texts* (Babylonian Records in the Library of J. Pierpont Morgan 4). New York: private printing.
- Coblin, W. South. 1993. “Erh ya.” In *Early Chinese Texts: A Bibliographical Guide*, edited by Michael Loewe, 94–99. Berkeley: Society for the Study of Early China.
- Cohen, Yoram. 2004. “Kidīn-Gula—The Foreign Teacher at the Emar Scribal School.” *Revue d’Assyriologie* 98: 81–100.
- . 2009. *The Scribes and Scholars of the City of Emar in the Late Bronze Age* (Harvard Semitic Studies 59). Winona Lake, IN: Eisenbrauns.
- . 2010. “The Glosses of the Emar Lexical Lists: Akkadian or West Semitic?” In *Language in the Ancient Near East*, vol. 1, *The Proceedings of the 53rd Rencontre Assyriologique Internationale, Moscow and Saint Petersburg*, edited by L. Kogan, 813–39. Winona Lake, IN: Eisenbrauns.
- Cole, Steven W. 1996. *Nippur*, vol. 4, *The Early Neo-Babylonian Governor’s Archive from Nippur* (Oriental Institute Publications 114). Chicago: University of Chicago Press.
- Cooper, David E. 2003. *World Philosophies: An Historical Introduction*, second edition. Oxford: Blackwell Publishing.
- Cooper, Jerrold. 1993. “Bilingual Babel: Cuneiform Texts in Two or More Languages from Ancient Mesopotamia and Beyond.” *Visible Language* 27:1–2: 68–96.
- . 2008. “Postscript: Redundancy Reconsidered: Reflections on David Brown’s Thesis.” In *The Disappearance of Writing Systems: Perspectives on Literacy and Communication*, edited by John Baines, John Bennet, and Stephen Houston, 103–8. London: Equinox.
- Cornford, Francis MacDonald. 2003. *Plato’s Theory of Knowledge: The Theaetetus and the Sophist*. Mineola, NY: Dover Publications.
- Cryer, Frederick H. 1994. *Divination in Ancient Israel and its Near Eastern Environment: A Socio-Historical Investigation*. Sheffield: JSOT Press.
- Cumont, Franz. 1912. *Astrology and Religion among the Greeks and Romans*. New York and London: Putnam’s Sons.
- Dalley, Stephanie. 1989. *Myths from Mesopotamia*. Oxford: Oxford University Press.
- , ed. 1998. *The Legacy of Mesopotamia*. Oxford: Oxford University Press.
- Dalley, Stephanie, C.B.F. Walker, and J. D. Hawkins. 1976. *The Old Babylonian Tablets from Tell al Rimah*. Hertford: The British School of Archaeology in Iraq.
- Daube, David. 1956. *Forms of Roman Legislation*. Oxford: Clarendon Press.
- . 1981. *Ancient Jewish Law: Three Inaugural Lectures*. Leiden: E. J. Brill.
- Damerow, Peter. 2006. “The Origins of Writing as a Problem of Historical Epistemology.” *CDLI* 2006:1 http://cdli.ucla.edu/pubs/cdlj/2006/cdlj2006_001.html
- Daneshmand, Parsa. 2004. “An Extispicy Text from Haft-Tappe.” *Journal of Cuneiform Studies* 56: 13–17.

- Dantzig, Charles. 2009. *Encyclopédie capricieuse du tout et du rien*. Paris: Grasset and Fasquelle.
- De Breucker, Geert. 2011. "Berossos between Tradition and Innovation." In *The Oxford Handbook of Cuneiform Culture*, edited by Karen Radner and Eleanor Robson, 637–57. Oxford and New York: Oxford University Press.
- De Breucker, Geert. 2014. "Berossos of Babylon (680)." In *Brill's New Jacoby*, edited by Ian Worthington. Brill Online, 2014.
- Deimel, Anton. 1928–33. *Šumerisches Lexikon*. Rome: Pontificium Institutum Biblicum.
- Deleuze, Gilles, and Félix Guattari. 1987. *A Thousand Plateaus: Capitalism and Schizophrenia*. Translated by Brian Massumi. Minneapolis and London: University of Minnesota Press.
- Delnero, Paul. 2012. "Memorization and the Transmission of Sumerian Literary Compositions." *Journal of Near Eastern Studies* 71: 189–208.
- . 2013. "On the Sumerian Liturgical Tradition." *Orientalistische Literaturzeitung* 108: 145–52.
- Derrida, Jacques. 1974. *Of Grammatology*. Translated by Gayatri Chakravorty Spivak. Baltimore and London: The Johns Hopkins University Press.
- . 1982. *Margins of Philosophy*. Translated by Alan Bass. New York and London: Harvester Wheatsheaf.
- Detienne, Marcel. 1988. "L'espace de la publicité, ses opérateurs intellectuels dans la cité." In *Les Savoirs de l'écriture: En Grèce ancienne*, edited by Marcel Detienne, 29–81. Villeneuve-d'Ascq: Presses universitaires de Lille.
- De Zorzi, Nicla. 2009. "Bird Divination in Mesopotamia: New Evidence from BM 108874." *KASKAL Rivista di storia, ambienti e culture del Vicino Oriente Antico* 6: 85–135.
- De Zorzi, Nicla. 2011. "The Omen Series *Šumma izbu*: Internal Structure and Hermeneutic Strategies." *KASKAL Rivista di storia, ambienti e culture del Vicino Oriente Antico* 8: 43–75.
- Dietrich, Manfred, and Oswald Loretz. 1990. *Mantik in Ugarit*. Münster: Ugarit-Verlag.
- Dion, Paul E. 2001. "Review of Ed. Lévy, ed. *La Codification des lois dans l'antiquité: Actes du Colloque de Strasbourg, 27–29 Novembre 1997*, Paris 2000." *Journal of the American Oriental Society* 121: 314–15.
- Drew, Katherine Fischer. 1991. *The Laws of the Salian Franks*. Philadelphia: University of Pennsylvania Press.
- Durand, Jean-Marie. 1988. *Archives épistolaires de Mari I/1* (Archives royales de Mari 26/1). Paris: Éditions Recherche sur les Civilisations.
- . 1997. "La divination par les oiseaux." *Mari: Annales de Recherches Interdisciplinaires* 8: 273–82.
- Durkheim, Émile, and Marcel Mauss. 1963. *Primitive Classification*. Translated by Rodney Needham. Chicago: University of Chicago Press.
- Eco, Umberto. 2009. *The Infinity of Lists: From Homer to Joyce*. Translated by Alastair McEwen. London: MacLehose.
- Edzard, Dietz Otto. 2007. "Die altmesopotamischen lexikalischen Liste—verkannte Kunstwerke?" In *Das geistige Erfassen der Welt im Alten Orient: Sprache,*

- Religion, Kultur und Gesellschaft*, edited by Claus Wilcke, 17–26. Wiesbaden: Harrassowitz.
- Eichler, B. L. 1987. “Literary Structure in the Laws of Eshnunna.” In *Language, Literature, and History: Philological and Historical Studies presented to Erica Reiner*, edited by Francesca Rochberg-Halton, 71–84. New Haven: American Oriental Society.
- Eidem, Jesper. 1997. “Cuneiform Inscriptions.” In *Qala’at al-Bahrain*, vol. 2, *The Central Monumental Buildings*, edited by F. Hojlund and H. H. Andersen (Jutland Archaeological Society Publications 30/2), 76–80. Aarhus: Aarhus University.
- Eilers, Wilhelm. 1932. *Die Gesetzesstele Chammurabis* (Der Alte Orient 31/1). Leipzig: J. C. Hinrichs’sche Buchhandlung.
- Englund, Robert K. 1998. “Texts from the Late Uruk Period.” In Josef Bauer, Robert K. Englund, and Manfred Krebernik, *Mesopotamien: Späturuk-Zeit und Frühdynastische Zeit* (Orbis Biblicus et Orientalis 160/1), 13–233. Freiburg: Universitätsverlag; Göttingen: Vandenhoeck & Ruprecht.
- Englund, Robert K., and Hans J. Nissen. 1993. *Die lexikalischen Listen der archaischen Texte aus Uruk*. Berlin: Gebr. Mann Verlag.
- Fadhil, Abdulillah. 1998. “Der Prolog des Codex Hammurapi in einer Abschrift aus Sippar.” In XXXIV. *International Assyriology Congress*, 717–29. Ankara: Turkish Historical Society.
- Fales, F. M., and J. N. Postgate. 1992. *Imperial Administrative Records, Part I: Palace and Temple Administration* (State Archives of Assyria 7). Helsinki: Helsinki University Press.
- . 1995. *Imperial Administrative Records, Part II: Provincial and Military Administration* (State Archives of Assyria 11). Helsinki: Helsinki University Press.
- Falkenstein, Adam. 1956. *Die Neusumerischen Gerichtsurkunden* I–II (ABAW 39–40). Munich.
- . 1966. “‘Wahrsagung’ in der sumerischen Überlieferung.” In *La Divination en Mésopotamie ancienne*, 45–68. Paris: Presses Universitaires de France.
- Falconer, W. A., trans. 1923. *Cicero: On Old Age; On Friendship; On Divination* (Loeb Classical Library 154). Cambridge, MA: Harvard University Press.
- Farber, Walter. 1988. “Neues aus Uruk: Zur ‘Bibliothek des Iqīša.’” *Die Welt des Orients* 18: 26–42.
- Fincke, Jeanette C. 2001. “Der Assur-Katalog der Serie *enūma anu enlil* (EAE).” *Orientalia* 70: 19–39.
- . 2003–4. “The Babylonian Texts of Nineveh: Report on the British Museum’s Ashurbanipal Library Project.” *Archiv für Orientforschung* 50: 111–49.
- . 2010. “Astrologische Omenreporte aus Assur.” In *Assur-Forschungen* edited by Stefan M. Maul and Nils P. Heeßel, 35–63. Wiesbaden: Harrassowitz Verlag.
- Finet, André. 1973. *Le code de Hammurapi* (Littératures anciennes du Proche-Orient; 6). Paris: Éditions du Cerf.
- Fink, Sebastian. 2014. *Benjamin Whorf, die Sumerer und der Einfluss der Sprache auf das Denken*. Wiesbaden: Harrassowitz.
- Finkel, Irving L. 1988. “Adad-apla-iddina, Esagil-kīn-apli, and the Series

- SA.GIG." In *A Scientific Humanist: Studies in Memory of Abraham Sachs*, edited by Erle Leichty, Maria deJ. Ellis, and Pamela Gerardi (Occasional Publications of the Samuel Noah Kramer Fund 9), 143–59. Philadelphia: The University Museum.
- Finkelstein, J. J. 1963. "Mesopotamian Historiography." *Proceedings of the American Philosophical Society* 107: 461–72.
- . 1967. "A Late Old Babylonian Copy of the Laws of Hammurapi." *Journal of Cuneiform Studies* 21: 39–48.
- . 1981. *The Ox That Gored* (Transactions of the American Philosophical Society vol. 71, part 2). Philadelphia: American Philosophical Society.
- Finley, Moses. 1985. *The Ancient Economy*, second edition. Berkeley and Los Angeles: University of California Press.
- Flower, Michael A. 2008. *The Seer in Ancient Greece*. Berkeley: University of California Press.
- Folkerts, Menso. 2001. "Ptolemaios, Klaudios P." *Der Neue Pauly*, edited by H. Cancik and H. Schneider, *Altertum* vol. 10, 559–67. Stuttgart and Weimar: Metzler.
- Foster, Benjamin R. 1991. "On Authorship in Akkadian Literature." *Annali del Istituto Orientale di Napoli* 51: 17–32.
- . 2005. *Before the Muses: An Anthology of Akkadian Literature*, third edition. Bethesda, MD: CDL Press.
- . 2007. *Akkadian Literature of the Late Period* (Guides to the Mesopotamian Textual Record 2). Münster: Ugarit Verlag.
- Foucault, Michel. 1966. *Les mots et les choses*. Paris: Gallimard.
- . 1970. *The Order of Things: An Archaeology of the Human Sciences*. New York: Random House.
- . 1979. "What Is an Author?" *Textual Strategies: Perspectives in Post-structuralist Criticism*, edited by Josué V. Harari, 141–60. Ithaca, NY: Cornell University Press.
- Frahm, Eckart. 1999. "Nabû-zuqup-kēnu, das Gilgameš-Epos und der Tod Sargons II." *Journal of Cuneiform Studies* 51: 73–90.
- . 2004. "Royal Hermeneutics: Observations on the Commentaries from Ashurbanipal's Libraries at Nineveh." *Iraq* 66: 45–54.
- . 2010. "Reading the Tablet, the Extā, and the Body: The Hermeneutics of Cuneiform signs in Babylonian and Assyrian Text Commentaries and Divinatory Texts." In *Divination and Interpretation of Signs in the Ancient World*, edited by Amar Annus (Oriental Institute Seminars 6), 93–141. Chicago: Oriental Institute of the University of Chicago.
- . 2011. *Babylonian and Assyrian Text Commentaries. Origins of Interpretation* (Guides to the Mesopotamian Textual Record 5). Münster: Ugarit Verlag.
- Frame, Grant, and Andrew George. 2005. "The Royal Libraries of Nineveh: New Evidence for King Ashurbanipal's Tablet Collecting." In *Nineveh. Papers of the XLIXe Rencontre Assyriologique Internationale, London, 7–11 July 2003*, edited by Dominique Collon and Andrew George, vol. 2 (*Iraq* 67): 265–84. London: British School of Archaeology in Iraq.

- Frankfort, H. 1952. "The Ancient Near East as an Historical Entity." *History. Journal of the Historical Association*, London October 1952: 193–200.
- Frankfort, H., H. A. Frankfort, John A. Wilson, and Thorkild Jacobsen. 1949. *Before Philosophy: The Intellectual Adventure of Ancient Man—An Essay on Speculative Thought in the Ancient Near East*. Harmondsworth: Penguin Books.
- Freedman, Sally M. 1998. *If a City Is Set on a Height: The Akkadian Omen Series "Šumma Alu ina Mēlê Šakin,"* vol. 1 (Occasional Publications of the Samuel Noah Kramer Fund 17). Philadelphia: Samuel Noah Kramer Fund.
- . 2006. *If a City Is Set on a Height: The Akkadian Omen Series "Šumma Alu ina Mēlê Šakin,"* vol. 2 (Occasional Publications of the Samuel Noah Kramer Fund 19). Philadelphia: Samuel Noah Kramer Fund.
- Frymer-Kenski, Tikva. 2003. "Israel." In *A History of Ancient Near Eastern Law*, edited by Raymond Westbrook (Handbuch der Orientalistik, Erste Abteilung, Nahe und der Mittlere Osten 72), 975–1046. Leiden: Brill.
- Gadd, C. J. 1948. *Ideas of Divine Rule in the Ancient East* (The Schweich lectures of the British Academy; 1945). Oxford: Oxford University Press.
- Gadd, C. J., and S. N. Kramer. 1966. *Literary and Religious Texts* (Ur Excavations, Texts 6/2). London: Printed by Order of the Trustees of the Two Museums.
- Gantzert, Merijn. 2011. *The Emar Lexical Texts*, 4 volumes. Maastricht.
- Gargarin, Michael. 2000. "Le code de Platon et le droit grec." In *La Codification des lois dans l'antiquité*, edited by Ed Lévy, 215–27. Paris: Diffusion de Boccard.
- . 2008. *Writing Greek Law*. Cambridge: Cambridge University Press.
- Gelb, I. J. 1952. *A Study of Writing: The Foundations of Grammatology*. Chicago: University of Chicago Press.
- . 1963. *A Study of Writing*. Revised edition. Chicago: University of Chicago Press.
- Gelb, I. J., Piotr Steinkeller, and Robert Whiting. 1991. *Earliest Land Tenure Systems in the Near East: Ancient Kudurrus*. Chicago: The Oriental Institute of the University of Chicago.
- Geller, Markham. 1997. "The Last Wedge." *Zeitschrift für Assyriologie* 87: 43–95.
- . 2004. "West Meets East: Early Greek and Babylonian Diagnosis." In *Magic and Rationality in Ancient Near Eastern and Graeco-Roman Medicine*, edited by H.F.J. Horstmannshoff and M. Stol, 11–62. Leiden and Boston: Brill.
- . 2010. *Ancient Babylonian Medicine: Theory and Practice*. Chichester: Wiley-Blackwell.
- Gehrke, H. J. 2000. "Verschriftung und Verschriftlichung sozialer Normen im archaischen und klassischen Griechenland." In *La Codification des lois dans l'antiquité*, edited by Ed Lévy, 141–59. Paris: Diffusion de Boccard.
- George, A. R. 1991. "Babylonian Texts from the Folios of Sidney Smith, Part Two: Prognostic and Diagnostic Omens, Tablet I." *Revue d'Assyriologie* 85: 137–67.
- . 2003. *The Babylonian Gilgamesh Epic: Introduction, Critical Edition and Cuneiform Texts*. Oxford: Oxford University Press.
- . 2007. "Gilgamesh and the Literary Traditions of Ancient Mesopotamia."

- In *The Babylonian World*, edited by Gwendolyn Leick, 447–59. New York and London: Routledge.
- . 2011. *Cuneiform Royal Inscriptions and Related Texts in the Schøyen Collection* (CUSAS 17). Bethesda, MD: CDL Press.
- . 2013. *Babylonian Divinatory Texts Chiefly in the Schøyen Collection* (CUSAS 18). Bethesda, MD: CDL Press.
- Gesche, Petra D. 2000. *Schulunterricht in Babylonien im ersten Jahrtausend v. Chr.* (Alter Orient und Altes Testament 275). Münster: Ugarit-Verlag.
- Ginzburg, Carlo. 1980. “Morelli, Freud and Sherlock Holmes: Clues and Scientific Method.” *History Workshop Journal* 9: 5–36.
- Glassner, Jean-Jacques. 1983. “Nārām-Sîn poliorcète: Les avatars d’une sentence divinatoire.” *Revue d’Assyriologie* 77: 3–10.
- . 1984. “Pour un lexique des termes et figures analogiques en usage dans la divination mésopotamienne.” *Journal Asiatique* 272: 15–46.
- . 1989. “La philosophie mésopotamienne.” In *Encyclopédie philosophique universelle*, vol. 1: *L’Univers philosophique*, edited by André Jacob, 1637–1642. Paris: Presses universitaires de France.
- . 1995. “The Use of Knowledge in Ancient Mesopotamia.” In *Civilizations of the Ancient Near East*, edited by Jack M. Sasson, 1815–26. New York: Charles Scribner’s Sons.
- . 2002. “Who Were the Authors before Homer in Mesopotamia?” *Dio- genes* 196: 86–92.
- . 2003. *The Invention of Cuneiform: Writing in Sumer*. Translated by Zainab Bahrani and Marc Van De Mieroop. Baltimore: The Johns Hopkins University Press.
- . 2004. *Mesopotamian Chronicles*. Atlanta: Society of Biblical Literature.
- . 2005a. “Des dieux, des scribes et des savants: Circulation des idées et transmission des écrits en Mésopotamie.” *Annales HSS* 60: 483–506.
- . 2005b. “L’aruspicine paléo-babylonienne et le témoignage des sources de Mari.” *Zeitschrift für Assyriologie* 95: 276–300.
- . 2007. “Lignées de lettrés en Mésopotamie.” *Lieux de savoir: Espaces et communautés*, edited by Christian Jacob, 134–56. Paris: Éditions Michel Albin.
- . 2008. “Le corps écrit: La victime dans le sacrifice divinatoire en Mésopotamie.” *Du corps au texte. Approches comparatives*, edited by B. Baptandier and G. Charuty, 185–206. Nanterre: Société d’ethnologie.
- . 2009. “Écrire des livres à l’époque paléo-babylonienne: Le traité d’extispicine.” *Zeitschrift für Assyriologie* 99: 1–81.
- . 2010. “Histoire des écritures: Questions d’obsolescence et de résilience.” *Orientalistische Literaturzeitung* 105: 397–412.
- . 2012a. “La fabrique des presages en Mésopotamie: La sémiologie des devins.” In *La raison des signes: Présages, rites, destin dans les sociétés de la Méditerranée ancienne*, edited by Stella Georgoudi et al., 29–53. Leiden and Boston: Brill.
- . 2012b. “Droit et divination: Deux manières de rendre la justice—À propos de dinum, ušurtum et awatum.” *Journal of Cuneiform Studies* 64: 39–56.

- Glassner, Jean-Jacques. 2012c. "Le travail des devins à l'époque paléobabylonienne et la composition des traits d'extispicine. Premiers éléments de réflexion." In *Wissenskultur im Alten Orient*, edited by Hans Neumann (CDOG 4), 153–68. Wiesbaden: Harrassowitz.
- Glenn, H. Patrick. 2007. *Legal Traditions of the World*, third edition. New York and Oxford: Oxford University Press.
- Goetze, Albrecht. 1947a. *Old Babylonian Omen Texts* (Yale Oriental Series. Babylonian Texts 10). New Haven, CT: Yale University Press.
- . 1947b. "Historical Allusions in Old Babylonian Omen Texts." *Journal of Cuneiform Studies* 1: 253–65.
- Goldstein, Ronnie. 2010. "Late Babylonian Letters on Collecting Tablets and Their Hellenistic Background—a Suggestion." *Journal of Near Eastern Studies* 69: 199–207.
- Gong, Yushu. 2000. *Die Namen der Keilschriftzeichen* (Alter Orient und Altes Testament 268). Münster: Ugarit-Verlag.
- Goody, Jack. 1977. *The Domestication of the Savage Mind*. Cambridge: Cambridge University Press.
- . 1986. *The Logic of Writing and the Organization of Society*. Cambridge: Cambridge University Press.
- . 1987. *The Interface between the Written and the Oral*. Cambridge: Cambridge University Press.
- . 2000. *The Power of the Written Tradition*. Washington and London: Smithsonian Institution Press.
- Goody, Jack, and Ian Watt. 1963. "The Consequence of Literacy," *Comparative Studies in Society and History* 5: 304–45; reprinted in *Literacy in Traditional Societies* (Jack Goody, ed.), 27–68. Cambridge: Cambridge University Press, 1968.
- Graßhoff, Gerd. 2011. "Babylonian Meteorological Observations and the Empirical Basis of Ancient Science." In *The Empirical Dimension of Ancient Near Eastern Studies*, edited by Gebhard Selz (Wiener Offene Orientalistik 6), 33–48. Vienna: LIT.
- Greaves, Sheldon W. 2000. "Ominous Homophony and Portentous Puns in Akkadian Omens." In *Puns and Pundits: Word Play in the Hebrew Bible and Ancient Near Eastern Literature*, edited by Scott B. Noegel, 103–13. Bethesda, MD: CDL Press.
- Guinan, Ann. 1989. "The Perils of Living High: Divinatory Rhetoric in *Šumma Ālu*." In *DUMU-E₂-DUB-BA: Studies in Honor of Åke W. Sjöberg*, edited by H. Behrens, D. Loding, and M. Roth (Occasional Publications of the Samuel Noah Kramer Fund 11), 227–35. Philadelphia: The University Museum.
- . 1996. "Left / Right Symbolism in Mesopotamian Divination." *State Archives of Assyria Bulletin* 10/1: 5–10.
- . 1997. "Mesopotamian Omens." In *The Context of Scripture*, edited by W. Hallo, vol. 1: 423–26. Leiden: Brill.
- . 2002. "A Severed Head Laughed: Stories of Divinatory Interpretation." In *Magic and Divination in the Ancient World*, edited by L. Ciraolo and J. Seidel (Ancient Magic and Divination 2), 7–40. Groningen: Styx.

- Gurney, O. R., and P. Hulin. 1964. *The Sultantepe Tablets*, vol. 2. Ankara: British Institute of Archaeology.
- Haase, Richard. 2003. "The Hittite Kingdom." In *A History of Ancient Near Eastern Law*, edited by Raymond Westbrook (Handbuch der Orientalistik, Erste Abteilung, Nahe und der Mittlere Osten 72), 619–56. Leiden: Brill.
- Hallo, William W. 1996. "Bilingualism and the Beginnings of Translation." In *Texts, Temples, and Traditions: A Tribute to Menahem Haran*, edited by Michael V. Fox et al., 345–57. Winona Lake, IN: Eisenbrauns.
- Hallo, William W., and William Kelly Simpson. 1998. *The Ancient Near East: A History*, second edition. Fort Worth, TX: Harcourt Brace College Publishers.
- Halverson, John. 1992. "Goody and the Implosion of the Literacy Thesis." *Man* New Series 27: 301–17.
- Hamilton, Walter, trans. 1973. *Plato: Phaedrus and the Seventh and Eight Letters*. Harmondsworth: Penguin Books.
- Hamza, Hussein Ali. 2011. "Tell Muhammed: The Eighth Season of Excavations." In *Between the Cultures: The Central Tigris Region from the 3rd to the 1st Millennium BC*, edited by Peter A. Miglus and Simone Mühl, 405–18. Heidelberg: Heidelberger Orientverlag.
- Harris, William V. 1989. *Ancient Literacy*. Cambridge, MA: Harvard University Press.
- Haywood, J. A. 1978. "Kāmūs." *The Encyclopaedia of Islam*, edited by E. van Donzel et al., vol. 4: 524–25. Leiden: E. J. Brill.
- Heeßel, Nils P. 2000. *Babylonisch-assyrische Diagnostik* (Alter Orient und Altes Testament 43). Münster: Ugarit Verlag.
- . 2004. "Diagnosis, Divination and Disease: Towards an Understanding of the Rationale behind the Babylonian *Diagnostic Handbook*." In *Magic and Rationality in Ancient Near Eastern and Graeco-Roman Medicine*, edited by H.F.J Horstmanshoff and M. Stol, 97–116. Leiden and Boston: Brill.
- . 2007. *Divinatorische Texte*, vol. 1: *Keilschrifttexte aus Assur literarischen Inhalts*, Bd. 1 (Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft, 116). Wiesbaden: Harrassowitz.
- . 2010. "Neues von Esagil-kin-apli: Die ältere Version der physiognomischen Omenserie *alamdimmû*." In *Assur-Forschungen* edited by Stefan M. Maul and Nils P. Heeßel, 139–87. Wiesbaden: Harrassowitz Verlag.
- . 2011a. "Die Divination in Assur—Assyrische Gelehrte und Babylonische Tradition." In *Assur—Gott, Stadt und Land*, edited by Johannes Renger (CDOG 5), 371–84. Wiesbaden: Harrassowitz Verlag.
- . 2011b. "Sieben Tafeln aus sieben Städten. Überlegungen zum Prozess der Serialisierung von Texten in Babylonien in der zweiten Hälfte des zweiten Jahrtausends v. Chr." In *Babylon. Wissenskultur in Orient und Okzident*, edited by Eva Cancik-Kirschbaum et al., 171–95. Berlin and Boston: De Gruyter.
- . 2012. *Divinatorische Texte*, vol. 2: *Keilschrifttexte aus Assur literarischen Inhalts* Bd. 5 (Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft, 139). Wiesbaden: Harrassowitz.
- Hegel, Georg Wilhelm Friedrich. 1995. *Lectures on the History of Philosophy*, vol.

- 1: *Greek Philosophy to Plato*. Introduction by Frederick C. Beiser; translated by E. S. Haldane. Lincoln, NE: University of Nebraska Press.
- Heimpel, Wolfgang. 1995. "Plow Animal Inspection Records from Ur III Girsu and Umma." *Bulletin on Sumerian Agriculture* 8: 71–171.
- Herrero, P., and J. J. Glassner. 1996. "Haft-tepe: Choix des texts IV." *Iranica Antiqua* 31: 51–82.
- Hicks, R. D., trans. 1931. *Diogenes Laertius, Lives of Eminent Philosophers*, vol. 2. Cambridge, MA: Harvard University Press.
- Hilgert, Markus. 2009. "Von 'Listenwissenschaft' und 'epistemischen Dingen': Konzeptuelle Annäherungen an altorientalische Wissenspraktiken." *Journal for General Philosophy of Science* 40: 277–309.
- Hoffner, Harry A. 1997. *The Laws of the Hittites: A Critical Edition*. New York: Brill.
- Horowitz, Wayne. 1988. "An Assur Source for Urra 21." *Archiv für Orientforschung* 35: 64–72.
- Horowitz, Wayne, Takayoshi Oshima, and Seth Sanders. 2006. *Cuneiform in Canaan: Cuneiform Sources from the Land of Israel in Ancient Times*. Jerusalem: Israel Exploration Society.
- Hrůša, Ivan. 2010. *Die akkadische Synonymenliste malku = šarru: Eine Textedition mit Übersetzung und Kommentar* (Alter Orient und Altes Testament 50). Münster: Ugarit Verlag.
- Hruška, Blahoslav. 1990. *Die traditionelle Ackerbau im alten Mesopotamien*. Prague: Orientální ústav CSAV.
- Hunger, Hermann. 1968. *Babylonische und assyrische Kolophone* (Alter Orient und Altes Testament 2). Kevelaer: Butzon & Bercker; Neukirchen-Vluyn: Neukirchener Verlag.
- . 1976. *Spätbabylonische Texte aus Uruk*, Teil I (Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk-Warka, Bd. 9). Berlin: Mann.
- . 1980–83. "Kolophon." *Reallexikon der Assyriologie* 6: 186–87. Berlin and New York: Walter de Gruyter.
- . 1992. *Astrological Reports to Assyrian Kings* (State Archives of Assyria 8). Helsinki: Helsinki University Press.
- Hunger, Hermann, and David Pingree. 1999. *Astral Sciences in Mesopotamia*. Leiden and Boston: Brill.
- Hunger, Hermann, and Teije de Jong. 2014. "Almanac W22340a from Uruk: The Latest Datable Cuneiform Tablet." *Zeitschrift für Assyriologie* 104: 182–94.
- Imparati, Fiorella. 1964. *Le leggi ittite* (Incunabula Graeca 7). Rome: Edizioni dell'Ateneo.
- Izre'el, Shlomo. 1997. *The Amarna Scholarly Tablets*. Groningen: Styx.
- Jacobsen, Thorkild. 1976. *Treasures of Darkness: A History of Mesopotamian Religion*. New Haven: Yale University Press.
- . 1982. "Oral to Written." In *Societies and Languages of the Ancient Near East: Studies in Honour of I. M. Diakonoff*, edited by J. N. Postgate, 129–37. Warminster: Aris & Phillips Ltd.
- Janssen, C., H. Gasche, and M. Tanret. 1994. "Du chantier à la tablette: Ur-Utu et l'histoire de sa maison à Sippar-Amnanum." In *Cinquante-deux réflexions*

- sur le proche-orient ancien offertes en homage à Léon De Meyer*, edited by Herman Gasche et al., 91–123. Louvain: Peeters.
- Jean, Cynthia. 2006. *La magie néo-assyrienne en contexte. Recherches sur le métier d'exorciste et le concept d'āšipūtu* (State Archives of Assyria Studies, 17). Helsinki: The Neo-Assyrian Text Corpus Project.
- Jeyes, Ulla. 1989. *Old Babylonian Extispicy: Omen Texts in the British Museum*. Istanbul: Nederlands Historisch-Archaeologisch Instituut.
- . 1997. "Assurbanipal's *bārūtu*." In *Assyrien im Wandel der Zeiten*, edited by H. Waetzoldt and H. Hauptmann (Heidelberger Studien zum Alten Orient 6), 61–65. Heidelberg: Heidelberger Orientverlag.
- . 2000. "A Compendium of Gall-Bladder Omens Extent in Middle Babylonian, Nineveh, and Seleucid Versions." In *Wisdom, Gods and Literature: Studies in Assyriology in Honour of W. G. Lambert*, edited by A. R. George and I. L. Finkel, 345–73. Winona Lake, IN: Eisenbrauns.
- Joannès, F. 1994. "Un précurseur paléo-babylonien de la série *Šumma Ālu*." In *Cinquante-deux réflexions sur le proche-orient ancien offertes en homage à Léon De Meyer*, edited by Herman Gasche et al., 305–12. Louvain: Peeters.
- Judt, Tony. 2010. "The Glory of the Rails." *New York Review of Books*, December 23, 2010, 60–61.
- Kämmerer, Thomas R. 1998. *Šimā milka: Induktion und Reception der mittelbabylonischen Dichtung von Ugarit, Emār und Tell el-'Amārna* (Alter Orient und Altes Testament 251). Münster: Ugarit Verlag.
- Kienast, Burkhard. 1978. *Die altbabylonischen Briefe und Urkunden aus Kisurra* (Freiburger Altorientalische Studien Band 2/1). Wiesbaden: F. Steiner.
- . 1994. "Die Altorientalischen Codices zwischen Mündlichkeit und Schriftlichkeit." In *Rechtskodifizierung und soziale Normen im interkulturellen Vergleich*, edited by H.-J. Gehrke, 13–26. Tübingen: Gunter Narr Verlag.
- Killen, John. 1993. "Records of Sheep and Goats at Mycenaean Knossos and Pylos." *Bulletin on Sumerian Agriculture* 7: 209–218.
- Klein, Jacob. 2000. "The so-called 'Spell of Nudimmud' (ELA 134–155): A Re-examination." In *Studi sul Vicino Oriente antico dedicati alla memoria di Luigi Cagni*, edited by Simonetta Graziani, 563–84. Naples: Istituto universitario orientale.
- Klinger, Jörg. 2005. "Die hethitische Rezeption mesopotamischer Literatur und die Überlieferung des Gilgameš-Epos in Hattuša." In *Motivation und Mechanismen des Kulturkontaktes in der späten Bronzezeit*, edited by Doris Prechel, 103–23. Firenze: LoGisma.
- Koch, Ulla. 2005. *Secrets of Extispicy: The Chapter Multābiltu of the Babylonian Extispicy Series and Niširti bārūti Texts Mainly from Aššurbanipal's Library* (Alter Orient und Altes Testament 326). Münster: Ugarit Verlag.
- . 2010. "Three Strikes and You're Out! A View on Cognitive Theory and the First Millennium Extispicy Ritual." In *Divination and Interpretation of Signs in the Ancient World*, edited by Amar Annus (Oriental Institute Seminars 6), 43–58. Chicago: Oriental Institute of the University of Chicago.
- . 2011. "Sheep and Sky: Systems of Divinatory Interpretation." In *The Oxford Handbook of Cuneiform Culture*, edited by Karen Radner and Eleanor Robson, 447–69. Oxford and New York: Oxford University Press.

- Koch-Westenholz, Ulla. 1995. *Mesopotamian Astrology*. Copenhagen: Museum Tusculanum Press.
- . 2000. *Babylonian Liver Omens*. Copenhagen: Museum Tusculanum Press.
- . 2002. "Old Babylonian Extispicy Reports." In *Mining the Archives. Festschrift for Christopher Walker on occasion of his 60th Birthday*, edited by Cornelia Wunsch, 131–45. Dresden: ISLET.
- Korošec, Viktor. 1964. "Keilschriftrecht." In *Handbuch der Orientalistik, Erste Abteilung, Ergänzungsband III: Orientalisches Recht*, edited by B. Spuler, 49–219. Leiden: Brill.
- Kraus, F. R. 1973. *Von mesopotamischen Menschen der altbabylonischen Zeit und seiner Welt* (Mededelingen der Koninklijke Nederlandse Akademie van Wetenschappen, Afdeling Letterkunde Nieuwe reeks 36/6). Amsterdam: North-Holland Publishing Company.
- . 1985. "Mittelbabylonische Opferschauprotokolle." *Journal of Cuneiform Studies* 37: 127–218.
- Krebernik, Manfred. 2001. *Die Altorientalischen Schriftfunde (Tall Bi'a/Tuttul II)*. Saarbrücken: SDV.
- Krecher, J. 1957–71. "Glossen. A: In sumerischen und akkadischen Texten." *Reallexikon der Assyriologie* 3: 431–40. Berlin and New York: Walter de Gruyter.
- Krispijn, Th. J. H. 1991–92. "The Early Mesopotamian Lexical Lists and the Dawn of Linguistics." *Jaarbericht van het vooraziatisch-egyptisch Genootschap "Ex Oriente Lux"* 32: 12–22.
- Kuhr, Amélie, and Susan Sherwin-White. 1991. "Aspects of Seleucid Royal Ideology." *Journal of Hellenic Studies* 111: 71–86.
- Labat, René. 1974. *Textes littéraires de Suse* (MDP 57). Paris: Geuthner.
- Lacheman, Ernest R. 1937. "An Omen Text from Nuzi." *Revue d'Assyriologie* 34: 1–8.
- . 1939. "Nuziana." *Revue d'Assyriologie* 36: 81–95.
- Laessøe, Jørgen. 1950. "On the Fragments of the Hammurabi Code." *Journal of Cuneiform Studies* 4: 173–87.
- . 1953. "Literacy and Oral Tradition in Ancient Mesopotamia." In *Studia Orientalia Ioanni Pedersen . . . dicata*, 205–18. Copenhagen: E. Munksgaard.
- Lafont, Bertrand, and Raymond Westbrook. 2003. "Neo-Sumerian Period (Ur III)." In *A History of Ancient Near Eastern Law*, edited by Raymond Westbrook (Handbuch der Orientalistik, Erste Abteilung, Nahe und der Mittlere Osten 72), 183–226. Leiden: Brill.
- Lafont, Sophie. 1994. "Ancient Near Eastern Laws: Continuity and Pluralism." In *Theory and Method in Biblical and Cuneiform Law*, edited by Bernard M. Levinson, 91–118. Sheffield: Sheffield Academic Press.
- Lambert, W. G. 1957. "Ancestors, Authors, and Canonicity." *Journal of Cuneiform Studies* 11: 1–14.
- . 1962. "A Catalogue of Texts and Authors." *Journal of Cuneiform Studies* 16: 59–77.
- . 1965. "Nebuchadnezzar King of Justice." *Iraq* 27: 1–11.

- . 1967. "Enmeduranki and Related Matters." *Journal of Cuneiform Studies* 21: 126–38.
- . 1976. "A Late Assyrian Catalogue of Literary and Scholarly Texts." In *Kramer Anniversary Volume: Cuneiform Studies in Honor of Samuel Noah Kramer*, edited by Barry L. Eichler (*Alter Orient und Altes Testament* 25), 313–18. Neukirchen-Vluyn: Verlag Butzon & Bercker Kevelaer.
- . 1985. "The Pair Lahmu-Lahamu in Cosmology." *Orientalia* 54: 189–202.
- . 1988. "An Old Akkadian List of Sumerian Personal Names." In *A Scientific Humanist: Studies in Memory of Abraham Sachs*, edited by Erle Leichty, Maria deJ. Ellis, and Pamela Gerardi (Occasional Publications of the Samuel Noah Kramer Fund 9), 251–60. Philadelphia: The University Museum.
- . 1989. "The Laws of Hammurabi in the First Millennium." In *Reflets des deux fleuves: Volume de mélanges offerts à André Finet*, edited by M. Lebeau and P. Talon, 95–98. Louvain: Peeters.
- . 1998. "The Qualifications of Babylonian Diviners." In *Festschrift für Rykle Borger zu seinem 65. Geburtstag am 24. Mai 1994*, edited by Stefan M. Maul (*Cuneiform Monographs* 10), 141–58. Groningen: Styx.
- . 2007. *Babylonian Oracle Questions*. Winona Lake, IN: Eisenbrauns.
- . 2008. "Mesopotamian Creation Stories." In *Imagining Creation*, edited by Markham J. Geller and Mineke Schipper, 15–59. Leiden and Boston: Brill.
- Landsberger, B[enno]. 1926. "Die Eigenbegrifflichkeit der Babylonischen Welt." *Islamica* 2: 355–72.
- . 1937. *Die Serie ana ittišu* (Materialien zum sumerischen Lexikon: Vokabulare und Formularbücher Band I). Rome: Pontificium Institutum Biblicum.
- . 1957. *MSL V. The Series ḪAR-ra = ḫubullu Tablets I–IV*. Rome: Pontificium Institutum Biblicum.
- . 1958. *MSL VI: The Series ḪAR-ra = ḫubullu Tablets V–VII*. Rome: Pontificium Institutum Biblicum.
- . 1960. *MSL VIII/1: The Fauna of Ancient Mesopotamia. First Part. ḪAR-ra = ḫubullu Tablet XIII*. Rome: Pontificium Institutum Biblicum.
- . 1962. *MSL VIII/2: The Fauna of Ancient Mesopotamia. Second Part. ḪAR-ra = ḫubullu Tablets XIV and XVIII*. Rome: Pontificium Institutum Biblicum.
- . 1976. *The Conceptual Autonomy of the Babylonian World*. Translated by T. Jacobsen, B. Foster, and H. von Siebenthal. Malibu, CA: Undena Publications.
- Landsberger, Benno, and Miguel Civil. 1967. *MSL IX: The Series ḪAR-ra = ḫubullu Tablet XV and related texts*. Rome: Pontificium Institutum Biblicum.
- Landsberger, B[enno], A. Falkenstein, R. T. Hallock, and Th. Jacobsen. 1956. *MSL IV*. Rome: Pontificium Institutum Biblicum.
- Landsberger, B[enno], R. T. Hallock, A. Sach, and H. S. Schuster. 1955. *MSL III: Das Syllabar A—Das Vokabular S^a—Das Vokabular Sb—Berichtigungen und Nachträge zu MSL II—Indices zu MSL II*. Rome: Pontificium Institutum Biblicum.

- Landsberger, Benno, and Erica Reiner. 1970. *MSL X: The Series H̒AR-ra = ḫubullu Tablets XVI, XVII, XIX and related texts*. Rome: Pontificium Institutum Biblicum.
- Landsberger, B[enno], and W. Von Soden. 1965. *Die Eigenbegrifflichkeit der Babylonischen Welt: Leistung und Grenze sumerischer und babylonischer Wissenschaft*. Darmstadt: Wissenschaftliche Buchgesellschaft.
- Laroche, Emmanuel. 1971. *Catalogue des textes hittites*. Paris: Klincksieck.
- Larsen, Mogens Trolle. 1987. "The Mesopotamian Lukewarm Mind: Reflections on Science, Divination and Literacy." In *Language, Literature, and History: Philological and Historical Studies Presented to Erica Reiner*, edited by F. Rochberg-Halton, 203–25. New Haven: American Oriental Society.
- . 1995. "The 'Babel/Bible' Controversy and Its Aftermath." In *Civilizations of the Ancient Near East*, edited by Jack M. Sasson, 95–106. New York: Charles Scribner's Sons.
- Lauinger, Jacob. 2005. "Epigraphic Finds from the Oriental Institute's 2003 Excavations at Alalakh." *Journal of Near Eastern Studies* 64: 53–58.
- Lehoux, Daryn. 2002. "The Historicity Question in Mesopotamian Divination." In *Under One Sky: Astronomy and Mathematics in the Ancient Near East*, edited by John M. Steele and Annette Imhausen (Alter Orient und Altes Testament 297), 209–22. Münster: Ugarit-Verlag.
- Leichty, Erle. 1970. *The Omen Series šumma izbu* (Texts from Cuneiform Sources 4). Locust Valley, NY: Augustin.
- Leichty, Erle. 1993. "Sheep Lungs." In *The Tablet and the Scroll: Near Eastern Studies in Honor of William W. Hallo*, edited by M. Cohen, D. Snell, and D. Weisberg, 259–61. Bethesda, MD: CDL Press.
- Lemche, Niels Peter. 1994–95. "Justice in Western Asia in Antiquity, or: Why No Laws Were Needed!" *Chicago-Kent Law Review* 70: 1695–1716.
- Lenzi, Alan. 2008a. *Secrecy and the Gods: Secret Knowledge in Ancient Mesopotamia and Biblical Israel* (State Archives of Assyria Studies, 19). Helsinki: The Neo-Assyrian Text Corpus Project.
- . 2008b. "The Uruk List of Kings and Sages and Late Mesopotamian Scholarship." *Journal of Ancient Near Eastern Religions* 8: 137–69.
- Lieberman, Stephen J. 1977. "The Names of the Cuneiform Graphemes in Old Babylonian Akkadian." In *Essays on the Ancient Near East in Memory of Jacob Joel Finkelstein*, edited by Maria de Jong Ellis, 147–54. Hamden, CT: Archon Books.
- . 1987. "A Mesopotamian Background for the So-Called Aggadic 'Measures' of Biblical Hermeneutics?" *Hebrew Union College Annual* 58: 157–225.
- . 1990. "Canonical and Official Cuneiform Texts: Towards an Understanding of Assurbanipal's Personal Tablet Collection." In *Lingering over Words: Studies in Ancient Near Eastern Literature in Honor of William L. Moran*, edited by T. Abusch et al., 305–36. Atlanta: Scholars Press.
- Limet, Henri. 1982. "Une science 'bloquée': Le cas de la Mésopotamie ancienne." *Akkadica* 26: 17–34.
- Lion, Brigitte. 2011. "Literacy and Gender." In *The Oxford Handbook of Cuneiform Culture*, edited by Karen Radner and Eleanor Robson, 90–112. Oxford and New York: Oxford University Press.
- Liverani, Mario. 1993. "Model and Actualization: The Kings of Akkad in the

- Historical Tradition." In *Akkad: the First World Empire*, edited by M. Liverani, 157–70. Padua: Sargon srl.
- Livingstone, Alasdair. 1997. "An Assurbanipal Hymn for Shamash." In *The Context of Scripture*, edited by W. W. Hallo, vol. 1: 474. Leiden: Brill.
- . 2007. "Ashurbanipal: Literate or Not?" *Zeitschrift für Assyriologie* 97: 98–118.
- Lloyd, G.E.R. 1991. *Methods and Problems in Greek Science*. Cambridge: Cambridge University Press.
- . 2004. *Ancient Worlds, Modern Reflections: Philosophical Perspectives on Greek and Chinese Science and Culture*. Oxford: Clarendon Press.
- Lurie, David B. 2011. *Realms of Literacy: Early Japan and the History of Writing*. Cambridge, MA: Harvard University Press.
- Manetti, Giovanni. 1993. *Theories of the Sign in Classical Antiquity*. Translated by C. Richardson. Bloomington: Indiana University Press.
- Matney, Timothy. 2012. "Northern Mesopotamia." In *A Companion to the Archaeology of the Ancient Near East*, edited by Dan Potts, 556–74. Oxford: Blackwell-Wiley.
- Mauer, Gerlinde. 1997. "Ein Schülerexzerpt aus Enūma Anu Enlil." *Baghdader Mitteilungen* 18: 239–42.
- Maul, Stefan M. 1992. "'Auf meinen Rechtsfall werde doch aufmerksam!' Wie sich die Babylonier und Assyrer vor Unheil schützten, das sich durch ein Vorzeichen angekündigt hatte." *Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin* 124: 131–42.
- . 1994. *Zukunftsbewältigung: Eine Untersuchung altorientalischen Denkens anhand der babylonisch-assyrischen Löserituale (Namburbi)* (Baghdader Forschungen 18). Mainz am Rhein: Verlag Philipp von Zabern.
- . 1998. "Der assyrische König—Hüter der Weltordnung." In *Gerechtigkeit: Richten und Retten in der abendländischen Tradition und ihren altorientalischen Ursprüngen*, edited by J. Assmann, B. Janowski, and M. Welker, 65–77. Munich: Fink.
- . 1999a. "Das Wort im Worte: Orthographie und Etymologie als hermeneutische Verfahren babylonischer Gelehrter." In *Commentaries—Kommentare*, edited by Glenn W. Most, 1–18. Göttingen: Vandenhoeck & Ruprecht.
- . 1999b. "How the Babylonians Protected Themselves against Calamities Announced by Omens." In *Mesopotamian Magic: Textual, Historical, and Interpretative Perspectives*, edited by T. Abusch and K. van der Toorn (Ancient Magic and Divination 1), 123–29. Groningen: Styx.
- . 2003–5. "Omina und Orakel: A. Mesopotamien." *Reallexikon der Assyriologie* 10: 45–88. Berlin and New York: Walter de Gruyter.
- . 2007. "Divination Culture and the Handling of the Future." In *The Babylonian World*, edited by Gwendolyn Leick, 361–72. New York and London: Routledge.
- . 2010. "Die Tontafelbibliothek aus dem sogenannten 'Haus des Beschwörungspriesters.'" In *Assur-Forschungen*, edited by Stefan M. Maul and Nils P. Heeßel, 189–227. Wiesbaden: Harrassowitz Verlag.
- . 2012. "Tontafelabschriften des 'Kodex Hammurapi' in altbabylonischer Monumentalschrift." *Zeitschrift für Assyriologie* 102: 76–99.

- Maul, Stefan M.. 2013. *Die Wahrsagekunst im Alten Orient*. Munich: C. H. Beck.
- Mayer, Werner R. 1987. "Ein altbabylonischer Opferschaubericht aus Babylon." *Orientalia* 56: 245–62.
- McCants, William F. 2012. *Founding Gods, Inventing Nations: Conquest and Culture Myths from Antiquity to Islam*. Princeton, NJ: Princeton University Press.
- Metzler, Kai Alexander. 2002. *Tempora in altbabylonischen literarischen Texten* (Alter Orient und Altes Testament 279). Münster: Ugarit-Verlag.
- Meyer, J.-W. 1980–83. "Lebermodelle B. Archäologisch." *Reallexikon der Assyriologie* 6: 522–27. Berlin and New York: Walter de Gruyter.
- . 1987. *Untersuchungen zu den Tonlebermodellen aus dem Alten Orient* (Alter Orient und Altes Testament 39). Neukirchen-Vluyn: Verlag Butzon & Bercker Kevelaer.
- Michalowski, Piotr. 1996. "Sailing to Babylon, Reading the Dark Side of the Moon." In *The Study of the Ancient Near East in the Twenty-first Century*, edited by J. S. Cooper and G. Schwartz, 177–93. Winona Lake, IN: Eisenbrauns.
- . 1998. "Literature as a Source of Lexical Inspiration: Some Notes on a Hymn to the Goddess Inana." In *Written on Clay and Stone: Ancient Near Eastern Studies Presented to Krystyna Szarzynska on the Occasion of her 80th Birthday*, edited by J. Braun et al., 65–73. Warsaw: Agade.
- . 2003. "An Early Dynastic Tablet of ED Lu A from Tell Brak (Nagar)." *CDLI* 2003:3. URL: <http://cdli.ucla.edu/pubs/cdlj/2003/003.html>.
- . 2006. "How to read the Liver—in Sumerian." In *If a Man Builds a Joyful House: Assyriological Studies in Honor of Erle Verdun Leichty*, edited by A. K. Guinan et al. (Cuneiform Monographs 31), 247–58. Leiden and Boston: Brill.
- . 2011. *The Correspondence of the Kings of Ur*. Winona Lake, IN: Eisenbrauns.
- . 2012. "Literacy Schooling and the Transmission of Knowledge in Early Mesopotamian Culture." In *Theory and Practice of Knowledge Transfer*, edited by W.S. Van Egmond and W. H. Van Soldt (PIHANS 121), 39–57. Leiden: Nederlands Instituut voor het Nabije Oosten.
- Michel, Cécile. 2000. "Les litiges commerciaux paléo-assyriens." In *Rendre la justice en Mésopotamie: Archives judiciaires du Proche-Orient ancien (IIIe-Ier millénaires avant J.-C.)*, edited by Francis Joannès, 113–39. Saint-Denis: Presses Universitaires de Vincennes.
- . 2003. *Old Assyrian Bibliography of Cuneiform Texts, Bullae, Seals and the Results of the Excavations at Aššur, Kültepe/Kaniš, Acemhöyük, Alişar and Boğazköy* (PIHANS 97). Istanbul: Nederlands Historisch-Archaeologisch Instituut.
- Milano, Lucio. 1995. "Ebla: A Third Millennium City-State in Ancient Syria." In *Civilizations of the Ancient Near East*, edited by Jack M. Sasson, 1219–1230. New York: Charles Scribner's Sons.
- Momigliano, Arnaldo. 1975. *Alien Wisdom: The Limits of Hellenization*. Cambridge and New York: Cambridge University Press.
- Needham, Rodney. 1987. *Counterpoints*. Berkeley and Los Angeles: University of California Press.

- Neugebauer, Otto. 1969. *The Exact Sciences in Antiquity*, second edition. New York: Dover Publications.
- Neugebauer, Otto, and Abraham Sachs. 1945. *Mathematical Cuneiform Texts* (American Oriental Series 29). New Haven, CT: American Oriental Society.
- Nissinen, Martti. 2003. *Prophets and Prophecy in the Ancient Near East*. Atlanta: Society of Biblical Literature.
- . 2010. "Prophecy and Omen Divination: Two Sides of the Same Coin." In *Divination and Interpretation of Signs in the Ancient World*, edited by Amar Annus (Oriental Institute Seminars 6), 341–51. Chicago: Oriental Institute of the University of Chicago.
- Nougayrol, Jean. 1967. "Rapports paléo-babyloniens d'haruspices." *Journal of Cuneiform Studies* 21: 219–35.
- Nougayrol, Jean, Emmanuel Laroche, Claude Schaeffer, and Charles Vroilleaud. 1968. *Ugaritica V*. Paris: Imprimerie Nationale.
- Oates, Joan, and David Oates. 2001. *Nimrud: An Assyrian Imperial City Revealed*. London: British School of Archaeology in Iraq.
- Oelsner, Joachim. 2002. "Hellenization of the Babylonian Culture?" In *Ideologies as Intercultural Phenomena*, edited by A. Panaino and G. Pettinato (Melammu Symposia 3), 183–96. Milan: Università di Bologna: IsIAO.
- . 2012. "Zur Einteilung des Kodex Hammu-räpi im Altertum." *Zeitschrift für altorientalische und biblische Rechtsgeschichte* 18: 79–126.
- Oldfather, C. H., trans. 1933. *Diodorus Siculus: Library of History, Volume 1, Books 1–2.34*. (Loeb Classical Library 279). Cambridge, MA: Harvard University Press.
- Oppenheim, A. Leo. 1956. *The Interpretation of Dreams in the Ancient Near East, with a Translation of an Assyrian Dream-Book* (Transactions of the American Philosophical Society; new ser., v. 46, pt. 3). Philadelphia: American Philosophical Society.
- . 1960. "Assyriology—Why and How?" *Current Anthropology* 1: 409–23.
- . 1969. "Divination and Celestial Observation in the Last Assyrian Empire." *Centaurus* 14: 97–135.
- . 1974. "A Babylonian Diviner's Manual." *Journal of Near Eastern Studies* 33: 197–220.
- . 1977. *Ancient Mesopotamia: Portrait of a Dead Civilization*, revised edition. Chicago: University of Chicago Press.
- . 1981. "Man and Nature in Mesopotamian Civilization." In *Dictionary of Scientific Biography*, edited by C. C. Gillespie, vol. 15, supplement 1: 634–66. New York: Scribner's.
- Oppenheim, A. Leo, Erica Reiner, and Michael Rowton. 1956. *The Assyrian Dictionary*, vol. 6: H. Chicago: The Oriental Institute.
- Oppenheim, A. Leo, Robert Biggs, and Erica Reiner. 1971. *The Assyrian Dictionary*, vol. 8: K. Chicago: The Oriental Institute.
- Parpola, Simo. 1970–83. *Letters from Assyrian Scholars to the Kings Esarhaddon and Assurbanipal* (Alter Orient und Altes Testament 5). Kevelaer: Butzon & Bercker; Neukirchen-Vluyn: Neukirchener Verlag.
- . 1971. *Letters from Assyrian Scholars to the Kings Esarhaddon and*

- Assurbanipal, Part II A: Introduction and Appendixes*. Academic dissertation. Kevelaer: Butzon & Bercker; Neukirchen-Vluyn: Neukirchener Verlag.
- . 1983. "Assyrian Library Records." *Journal of Near Eastern Studies* 42: 1–29.
- . 1993. *Letters from Assyrian and Babylonian scholars* (State Archives of Assyria 10). Helsinki: Helsinki University Press.
- Patterson, Cynthia. 2005. "Athenian Citizenship Law." In *The Cambridge Companion to Ancient Greek Law*, edited by Michael Gagarin and David Cohen, 267–89. Cambridge and New York: Cambridge University Press.
- Pedersén, Olof. 1985. *Archives and Libraries in the City of Assur: A Survey of the Material from the German Excavations*. Part I. Uppsala: Uppsala University.
- . 1986. *Archives and Libraries in the City of Assur: A Survey of the Material from the German Excavations*. Part II. Uppsala: Uppsala University.
- . 1998. *Archives and Libraries in the Ancient Near East, 1500–300 B.C.* Bethesda, MD: CDL Press.
- . 2005. *Archive und Bibliotheken in Babylon: Die Tontafeln der Grabung Robert Koldeweys 1899–1917* (Abhandlungen der Deutschen Orient-Gesellschaft 25). Saarbrücken: In Kommission bei SDV, Saarländische Druckerei und Verlag.
- Peterson, Jeremiah. 2006. "Direct Interconnections between the Lexical Traditions of Kassite Babylonia and the Periphery." *Ugarit Forschungen* 38: 577–92.
- Petschow, Herbert. 1965a. "Zur Systematik und Gesetzestchnik im Codex Hammurabi." *Zeitschrift für Assyriologie* 57: 146–72.
- . 1965b. "Zu den Stillformen antiker Gesetze und Rechtssammlungen." *Zeitschrift der Savigny-Stiftung für Rechtsgeschichte. Romanistische Abteilung* 82: 24–38.
- Petschow, Herbert. 1968. "Zur 'Systematik' in den Gesetzen von Eschnunna." In *Symbolae iuridicae et historicae Martino David dedicatae*, edited by J. A. Ankum et al., vol. 2: 131–41. Leiden: Brill.
- Pettinato, Giovanni. 1981a. *Testi lessicali monolingui della biblioteca L. 2769* (Materiali Epigrafici di Ebla 3). Naples: Istituto Universitario Orientale.
- . 1981b. "I vocabulari bilingui di Ebla." In *La lingua di Ebla*, edited by Luigi Cagni, 241–76. Naples: Istituto Universitario Orientale.
- . 1982. *Testi lessicali bilingui della biblioteca L. 2769, Parte 1: Traslitterazione dei testi e ricostruzione del VE* (Materiali Epigrafici di Ebla 4). Naples: Istituto Universitario Orientale.
- Picchioni, Sergio Angelo. 1997. *Testi lessicali monolingui "éš-bar-kin_x"*. Rome: Università degli studi di Roma La Sapienza, Dipartimento di studi orientali.
- Pinker, Steven. 2007. *The Stuff of Thought: Language as a Window into Human Nature*. New York: Viking.
- Pollock, Sheldon. 1996. "The Sanskrit Cosmopolis, 300–1300: Transculturation, Vernacularization, and the Question of Ideology." In *Ideology and Status of Sanskrit*, edited by J.E.M. Houben, 197–247. Leiden: Brill.
- . 2006. *The Language of the Gods in the World of Man: Sanskrit, Culture, and Power in Premodern India*. Berkeley: University of California Press.
- Pongratz-Leisten, Beate. 2010. "From Ritual to Text to Intertext: A New Look

- on the Dreams in *Ludlul Bēl Nēmeqi*." In *In the Second Degree: Paratextual Literature in Ancient Near Eastern and Ancient Mediterranean Culture and Its Reflections in Medieval Literature*, edited by P. Alexander, A. Lange and R. Pillinger, 139–57. Leiden: Brill.
- Postgate, J. N. 1973. "Assyrian Texts and Fragments." *Iraq* 35: 13–36.
- . 1984. "Cuneiform Catalysis: The First Information Revolution." *Archaeological Review from Cambridge* 3/2: 4–18.
- Potts, Daniel T. 2000. "Before Alexandria: Libraries in the Ancient Near East." In *The Library of Alexandria: Centre of Learning in the Ancient World*, edited by Roy MacLeod, 19–33. London and New York: Tauris.
- Pritchard, James B., ed. 1969. *Ancient Near Eastern Texts relating to the Old Testament*, third edition. Princeton, NJ: Princeton University Press.
- Rabelais. 1993. *Le tiers livre*, edited by Françoise Joukovsky. Paris: GF-Flammarion.
- Rackham, H., trans. 1969. *Pliny Natural History, Volume II, Books 3–7* (Loeb Classical Library 352). Cambridge, MA: Harvard University Press.
- Ramberg, Bjørn, and Kristin Gjesdal. 2009. "Hermeneutics." In *The Stanford Encyclopedia of Philosophy (Summer 2009 Edition)*, edited by Edward N. Zalta, URL = <http://plato.stanford.edu/archives/sum2009/entries/hermeneutics/>.
- Reade, J. E. 1998–2001. "Ninive (Nineveh)." *Reallexikon der Assyriologie* 9: 388–433. Berlin and New York: Walter de Gruyter.
- Reiner, Erica. 1999. "Babylonian Celestial Divination." In *Ancient Astronomy and Celestial Divination*, edited by N. M. Swerdlow, 21–37. Cambridge, MA: MIT Press.
- . 2002. *An Adventure of Great Dimension: The Launching of the Chicago Assyrian Dictionary* (Transactions of the American Philosophical Society 92/3). Philadelphia: American Philosophical Society.
- . 2006. *The Assyrian Dictionary*, vol. 18: *T*. Chicago: The Oriental Institute.
- Reiner, Erica, and Miguel Civil. 1974. *MSL XI. The Series ĦAR-ra = ħubullu Tablets XX—XXIV*. Rome: Pontificium Institutum Biblicum.
- Reiner, Erica, Robert Biggs, and Martha Roth. 1992a. *The Assyrian Dictionary*, vol. 17: *Š Part II*, Chicago: Oriental Institute.
- Reiner, Erica, Robert Biggs, and Martha Roth. 1992b. *The Assyrian Dictionary*, vol. 17: *Š Part III*, Chicago: Oriental Institute.
- Renger, Johannes. 1994. "Noch einmal: Was war des 'Kodex' Ħammurapi—ein erlassenes Gesetz oder ein Rechtsbuch?" In *Rechtskodifizierung und soziale Normen im interkulturellen Vergleich*, edited by H.-J. Gehrke, 27–59. Tübingen: Gunter Narr Verlag.
- Reuther, Oscar. 1926. *Die Innenstadt von Babylon (Merkes)* (Wissenschaftliche Veröffentlichung der Deutschen Orient-Gesellschaft 47). Leipzig: J. C. Hinrichs.
- Reynolds, Frances. 2003. *The Babylonian Correspondence of Esarhaddon and Letters to Assurbanipal and Sin-šarru-iškun from Northern and Central Babylonia* (State Archives of Assyria 18). Helsinki: Helsinki University Press.
- Richardson, Seth. 2002. "Ewe Should Be So Lucky: Extispicy Reports and

- Everyday Life." In *Mining the Archives: Festschrift for Christopher Walker on occasion of His 60th Birthday*, edited by Cornelia Wunsch, 229–44. Dresden: ISLET.
- . 2007. "Omen Report No. 38." *NABU* 2007/47.
- . 2010a. *Texts from the Late Old Babylonian Period* (Journal of Cuneiform Studies Supplemental Series 2). Boston: American Schools of Oriental Research.
- . 2010b. "On Seeing and Believing: Liver Divination and the Era of Warring States (ii)." In *Divination and Interpretation of Signs in the Ancient World*, edited by Amar Annus (Oriental Institute Seminars 6), 225–66. Chicago: Oriental Institute of the University of Chicago.
- . 2012. "Early Mesopotamia: The Presumptive State." *Past and Present* 215: 3–49.
- Richter, Thomas. 1999. "Untersuchungen zum Opferschauwesen III." In *Munuscula Mesopotamica: Festschrift für Johannes Renger*, edited by B. Böck, E. Cancik-Kirschbaum, and T. Richter (Alter Orient und Altes Testament 267), 399–414. Münster: Ugarit-Verlag.
- Riemschneider, Kasper K. 2004. *Die akkadischen und hethitischen Omentexte aus Boğazköy* (Dresdner Beiträge zur Hethitologie 12). Dresden: Technische Universität.
- Robson, Eleanor. 2007. "Secret de famille: Prêtres et astronomes à Uruk à l'époque hellénistique." *Lieux de savoir: Espaces et communautés*, edited by Christian Jacob, 440–60. Paris: Éditions Michel Albin.
- . 2008. *Mathematics in Ancient Iraq: A Social History*. Princeton, NJ: Princeton University Press.
- . 2011a. "The Production and Dissemination of Scholarly Knowledge." In *The Oxford Handbook of Cuneiform Culture*, edited by Karen Radner and Eleanor Robson, 557–76. Oxford and New York: Oxford University Press.
- . 2011b. "Empirical Scholarship in the Neo-Assyrian Court." In *The Empirical Dimension of Ancient Near Eastern Studies*, edited by Gebhard Selz (Wiener Offene Orientalistik 6), 603–29. Vienna: LIT.
- Rochberg, Francesca. 1999a. "Continuity and Change in Omen Literature." *Munuscula Mesopotamica: Festschrift für Johannes Renger*, edited by B. Böck, E. Cancik-Kirschbaum, and T. Richter (Alter Orient und Altes Testament 267), 415–25. Münster: Ugarit-Verlag.
- . 1999b. "Empiricism in Babylonian Omen Texts and the Classification of Mesopotamian Divination as Science." *Journal of the American Oriental Society* 119: 559–69.
- . 2000. "The *ṭupšar* Enūma Anu Enlil." In *Assyriologica et Semitica: Festschrift für Joachim Oelsner*, edited by J. Marzahn and H. Neumann (Alter Orient und Altes Testament 252), 359–75. Münster: Ugarit-Verlag.
- . 2004. *The Heavenly Writing: Divination, Horoscopy, and Astronomy in Mesopotamian Culture*. Cambridge: Cambridge University Press.
- . 2009. "Conditionals, Inference, and Possibility in Ancient Mesopotamian Science." *Science in Context* 22: 5–25.
- . 2010. "If P, then Q: Form and Reasoning in Babylonian Divination." In *Divination and Interpretation of Signs in the Ancient World*, edited by Amar

- Annus (Oriental Institute Seminars 6), 19–27. Chicago: Oriental Institute of the University of Chicago.
- . 2011. “Observing and Describing the World through Divination and Astronomy.” In *The Oxford Handbook of Cuneiform Culture*, edited by Karen Radner and Eleanor Robson, 618–36. Oxford and New York: Oxford University Press.
- Rochberg-Halton, Francesca. 1984. “Canonicity in Cuneiform Texts.” *Journal of Cuneiform Studies* 36: 127–44.
- Roth, Martha T. 1989. *Babylonian Marriage Agreements, 7th–3rd centuries B.C.* (Alter Orient und Altes Testament 222). Kevelaer: Butzon & Bercker; Neukirchen-Vluyn: Neukirchener Verlag.
- . 1997. *Law Collections from Mesopotamia and Asia Minor*, second edition. Atlanta: Scholars Press.
- . 2002. “Hammurabi’s Wronged Man.” *Journal of the American Oriental Society* 122: 38–45.
- . 2010. *The Assyrian Dictionary*, vol. 20: *U and W*. Chicago: The Oriental Institute.
- Rouault, Olivier. 2011. *Les textes des saisons 5 à 9: Terqa Final Reports No. 2* (Bibliotheca Mesopotamica 29). Malibu, CA: Undena Publications.
- Rouault, Olivier, and Claudio Saporetti. 1985. “Old Babylonian Texts from Tell Yelkhi (Hamrin Project, Iraq).” *Mesopotamia* 20: 23–52.
- Russell, John. 1999. *The Writing on the Wall*. Winona Lake, IN: Eisenbrauns.
- Rutten, Maggie. 1938. “Trente-deux modèles de foies en argile inscrits provenant de Tell-Hariri (Mari).” *Revue d’Assyriologie* 35: 36–70.
- Rutz, Matthew T. 2006. “Textual Transmission between Babylonia and Susa: A New Solar Omen Compendium.” *Journal of Cuneiform Studies* 58: 63–96.
- . 2011. “Threads for Esagil-kin-apli: The Medical Diagnostic-Prognostic Series in Middle Babylonian Nippur.” *Zeitschrift für Assyriologie* 101: 294–308.
- . 2013. *Bodies of Knowledge in Ancient Mesopotamia: The Diviners of Late Bronze Age Emar and Their Tablet Collection*. Leiden and Boston: Brill.
- Sachs, A. J. 1976. “The Latest Datable Cuneiform Tablets.” In *Kramer Anniversary Volume: Cuneiform Studies in Honor of Samuel Noah Kramer*, edited by Barry L. Eichler (Alter Orient und Altes Testament 25), 379–98. Neukirchen-Vluyn: Verlag Butzon & Bercker Kevelaer.
- Saggs, H.W.F. 1988. *The Greatness That Was Babylon*. London: Sidgwick & Jackson.
- Sallaberger, Walther. 1996. *Der Babylonische Töpfer und seine Gefässe: Nach Urkunden altsumerischer bis altbabylonischer Zeit sowie lexikalischen und literarischen Zeugnissen* (MHE, Series 2: Memoirs 3). Ghent: University of Ghent.
- . 2007. “Benno Landsbergers ‘Eigenbegrifflichkeit’ in wissenschaftsgeschichtlicher Perspektive.” In *Das geistige Erfassen der Welt im Alten Orient*, edited by Claus Wilcke, 63–82. Wiesbaden: Harrassowitz Verlag.
- . 2010. “König Ḫammurapi und die Babylonier: Wem übertrug der Kodex Ḫammurapi die Rechtspflege?” *Who Was King? Who Was Not King? The Rulers and the Ruled in the Ancient Near East*, edited by Petr Charvát

- and Petra Maríková Vlcková, 46–58. Prague: Institute of Archaeology of the Academy of Sciences of the Czech Republic.
- Sapir, Edward. 1929. "The Status of Linguistics as Science." *Language* 5: 207–14.
- Saporetto, Claudio. 1984. *Le Leggi della Mesopotamia*. Firenze: Le Lettere.
- . 1998. *Antiche leggi: I codici del Vicino Oriente antico*. Milan: Rusconi.
- Schaer, Roland, ed. 1996. *Tous les savoirs du monde: Encyclopédisme et bibliothèques, de Sumer au XXIe siècle*. Paris: Bibliothèque nationale de France/Flammarion.
- Scheil, Vincent. 1902. *Mémoires de la Délégation en Perse*, vol. 4: *Textes élamites et sémitiques, 2e série*. Paris: E. Leroux.
- Scheucher, Tobias. 2012. "Errors and Mistakes: The Narrow Limits of Orality—Literacy Research in the Study of Ancient Cultures—The Case of Lexical Lists from Ancient Hattuşa." In *Theory and Practice of Knowledge Transfer*, edited by W. S. Van Egmond and W. H. Van Soldt (PIHANS 121), 137–46. Leiden: Nederlands Instituut voor het Nabije Oosten.
- Schileico, Woldemar G. 1914/15. "Das sechsseitige Tonprisma Lugal-ušumgal's aus der Sammlung Lichatschew." *Zeitschrift für Assyriologie* 29: 78–84.
- Schoeler, Gregor. 2009. *The Genesis of Literature in Islam: From the Aural to the Read*. Edinburgh: Edinburgh University Press.
- Schretter, Manfred K. 1990. *Emesal-Studien: Sprach- und literaturgeschichtliche Untersuchungen zur sogenannten Frauensprache des Sumerischen* (Innsbrucker Beiträge zur Kulturwissenschaft—Sonderheft 69). Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.
- Schuster, H. S. 1938. "Die nach Zeichen geordneten sumerisch-akkadischen Vokabulare." *Zeitschrift für Assyriologie* 44: 217–70.
- Schwemer, Daniel. 2011. "Magic Rituals: Conceptualization and Performance." In *The Oxford Handbook of Cuneiform Culture*, edited by Karen Radner and Eleanor Robson, 418–42. Oxford and New York: Oxford University Press.
- Schwytter, Jürg R. 1998. "Syntax and Style in the Anglo-Saxon Law-Codes." In *Verschriftung und Verschriftlichung. Aspekte des Mediumwechsels in verschiedenen Kulturen und Epochen*, edited by C. Ehler and U. Schaefer, 189–231. Tübingen: Gunter Narr Verlag.
- Selz, Gebhard. 2011. "Remarks on the Empirical Foundation and Scholastic Traditions of Early Mesopotamian Acquisition of Knowledge." In *The Empirical Dimension of Ancient Near Eastern Studies*, edited by Gebhard Selz (Wiener Offene Orientalistik 6), 49–70. Vienna: LIT.
- Seminara, Stefano. 2001. *La versione accadica del Lugal-e: La tecnica babilonese della traduzione dal sumerico e le sue regole* (Materiali per il vocabolario sumerico 8). Rome: Università degli Studi di Roma "La Sapienza." Dipartimento di studi orientali.
- Shibata, Daisuke. 2009. "An Old Babylonian Manuscript of the Weidner God-list from Tell Taban." *Iraq* 71: 32–42.
- Shervin-White, Susan, and Amélie Kuhrt. 1993. *From Samarkhand to Sardis: A New Approach to the Seleucid Empire*. London: Duckworth.
- Sjöberg, Åke W. 1972. "In Praise of the Scribal Art." *Journal of Cuneiform Studies* 24: 126–31.
- . 1975. "Der Examentext A." *Zeitschrift für Assyriologie* 64: 137–67.

- . 1976. “in-nin šà-gur₄-ra. A Hymn to the Goddess Inanna by the en-Priestess Enġeduanna.” *Zeitschrift für Assyriologie* 65: 161–253.
- . 1991. “Was There a Sumerian Version of the Laws of Hammurabi?” In *Velles Paraules: Ancient Near Eastern Studies in Honor of Miguel Civil*, edited by P. Michalowski (Aula Orientalis 9), 219–25. Barcelona: Editorial AUSA.
- Sokolowski, Franciszek. 1955. *Lois sacrées de l'Asie mineure* (École française d'Athènes. Travaux et memoires IX). Paris: Boccard.
- Starr, Ivan. 1983. *The Rituals of the Diviner* (Bibliotheca Mesopotamica 12). Malibu: Undena.
- Starr, Ivan, and F.N.H. al-Rawi. 1999. “Tablets from the Sippar Library, VIII: Omens from the Gall-bladder.” *Iraq* 61: 173–85.
- Steele, John M. 2008. *A Brief Introduction to Astronomy in the Middle East*. London: SAQI.
- Steinkeller, Piotr. 1995. “Sheep and Goat Terminology in Ur III Sources from Drehem.” *Bulletin on Sumerian Agriculture* 8: 71–171.
- Stevens, Kathryn. 2013. “Secrets in the Library: Protected Knowledge and Professional Identity in Late Babylonian Uruk.” *Iraq* 75: 211–53.
- . 2014. “The Antiochus Cylinder, Babylonian Scholarship and Seleucid Imperial Ideology.” *Journal of Hellenic Studies* 134: 66–88.
- Stol, Marten. 2000. *Birth in Babylonia and the Bible: Its Mediterranean Setting*. Groningen: Styx.
- . 2004. “Wirtschaft und Gesellschaft in altbabylonischer Zeit.” In D. Charpin, D. O. Edzard, and M. Stol, *Mesopotamien. Die altbabylonische Zeit* (Orbis Biblicus et Orientalis 160/4), 643–975. Freiburg: Universitätsverlag; Göttingen: Vandenhoeck & Ruprecht.
- Streck, Michael P. 1998. “Review of Roth, Martha T. 1995 *Law Collections from Mesopotamia and Asia Minor*.” *Zeitschrift für Altorientalische und Biblische Rechtsgeschichte* 4: 303–9.
- . 2001. “Review of Freedman, Sally M. 1998. *If a City Is Set on a Height: The Akkadian Omen Series ‘Šumma Alu ina Mēlê šakin’* volume 1.” *Altorientalistische Literaturzeitung* 96: 216–22.
- . 2003. “Sprache und Denken im Alten Mesopotamien am Beispiel des Zeitausdrucks.” In *Festschrift Alexander Yu. Militarev*, edited by L. Kogan (Studia Semitica = Orientalia: Papers of the Oriental Institute III), 424–31. Moscow: Russian State University for the Humanities.
- . 2006–8. “Recht. A. Mesopotamien.” *Reallexikon der Assyriologie* 11 3/4: 280–85. Berlin and New York: Walter de Gruyter.
- Süel, Aygöl, and Oğuz Soysal. 2003. “A Practical Vocabulary from Ortaköy.” In *Hittite Studies in Honor of Harry A. Hoffner Jr. on the Occasion of His 65th Birthday* edited by G. Beckman et al., 349–65. Winona Lake, IN: Eisenbrauns.
- Tadmor, Hayim, Benno Landsberger, and Simo Parpola. 1989. “The Sin of Sargon and Sennacherib's Last Will.” *State Archives of Assyria Bulletin* 3: 3–51.
- Tanret, Michel. 2002. *Per aspera ad astra: L'apprentissage du cunéiforme à Sippar-Amnānum pendant la période paléobabylonienne tardive* (MHE, Series 3: Texts 1/2) Ghent: University of Ghent.
- . 2004. “Verba volent, scripta non manent: Tablettes nomades dans les archives des gala.mah à Sippar-Amnānum.” In *Nomades et sédentaires dans*

- le proche-orient ancien: Compte rendu de la XLVIe Rencontre assyriologique internationale, Paris, 10–13 juillet 2000*, edited by Christophe Nicolle, 249–70. Paris: Éditions recherche sur les civilisations.
- . 2008a. “Find the tablet box . . . New aspects of archive-keeping in Old Babylonian Sippar Amnanum.” In *Studies in Ancient Near Eastern World View and Society Presented to Marten Stol on the Occasion of his 65th Birthday*, edited by R. van der Spek, 131–47. Bethesda, MD: CDL Press.
- . 2008b. “Les tablettes scolaires.” In *Chagar Bazar (Syrie) III: Les trouvailles épigraphiques et sigillographiques du chantier I (2000–2002)*, edited by Ö. Tunca and A. Bagdo, 127–28. Louvain: Peeters.
- Tanret, Michel, and Katrien De Graef. 2010. “The Exercise Tablets from Chantier B in Susa Revisited.” *Iranica Antiqua* 45: 225–57.
- Taylor, Jon. 2001. “A New OB Proto-Lu-Proto-Izi Combination Tablet.” *Orientalia* 70: 209–34.
- . 2007. “Babylonian Lists of Words and Signs.” In *The Babylonian World*, edited by Gwendolyn Leick, 432–46. New York and London: Routledge.
- . 2008. “Lexicographical Study of the already-ancient in Antiquity.” In *Proceedings of the 51st Rencontre Assyriologique Internationale*, edited by Robert D. Biggs, Jennie Myers, and Martha T. Roth (Studies in Ancient Oriental Civilization 62), 203–10. Chicago: The Oriental Institute.
- Tigay, Jeffrey H. 1982. *The Evolution of the Gilgamesh Epic*. Philadelphia: University of Pennsylvania Press.
- Tinney, Steve. 1998. “Texts, Tablets, and Teaching. Scribal Education in Nippur and Ur.” *Expedition* 40 (2): 40–50.
- Tsukimoto, Akio. 1982. “A Report on Divination by Means of a Sacrificial Bird.” *Orient* 18: 106–10.
- Van De Mieroop, Marc. 1992. *Society and Enterprise in Old Babylonian Ur*. Berlin: Dietrich Reimer Verlag.
- . 1997. *The Ancient Mesopotamian City*. Oxford: Clarendon.
- . 2002. “A History of Near Eastern Debt?” In *Debt and Economic Renewal in the Ancient Near East*, edited by Michael Hudson and Marc Van De Mieroop, 59–94. Bethesda, MD: CDL Press.
- . 2005. *King Hammurabi of Babylon: A Biography*. Oxford: Blackwell.
- . 2010. “A Study in Contrast: Sargon of Assyria and Rusa of Urartu.” In *Opening the Tablet Box: Near Eastern Studies in Honor of Benjamin R. Foster*, edited by Sarah Melville and Alice Slotsky, 417–34. Leiden: Brill.
- . 2011a. “Hammurabi’s Self-Presentation.” *Orientalia* 80: 305–38.
- . 2011b. *A History of Ancient Egypt*. Oxford: Wiley-Blackwell.
- . In press A. “A Babylonian Cosmopolis.” In *Problems of Canonicity and Identity Formation in Ancient Egypt and Mesopotamia*, edited by K. Ryholt and G. Barjamovic.
- . In press B. “Southern Mesopotamia during the Old Babylonian Period.” In *A Handbook of Ancient Mesopotamia*, edited by G. Rubio. Boston: Walter de Gruyter.
- Van den Hout, Theo. 2003–5. “Orakel. B. Bei den Hethitern.” *Reallexikon der Assyriologie* 10: 118–24. Berlin and New York: Walter de Gruyter.
- . 2008. “A Classified Past: Classification of Knowledge in the Hittite

- Empire." In *Proceedings of the 51st Rencontre Assyriologique Internationale held at the Oriental Institute of the University of Chicago July 18–22, 2005*, edited by Robert D. Biggs et al., 211–20 (Studies in Ancient Oriental Civilization 62). Chicago: The Oriental Institute of the University of Chicago.
- Vanderkam, James C. 1992. "Ahikar/Ahiqar." In *The Anchor Bible Dictionary*, edited by David Noel Freedman, vol. 1: 113–15. New York: Doubleday.
- Van der Meer, P. E. 1935. *Textes scolaires de Suse* (Mémoires de la Mission archéologique de Perse t. 27). Paris: Leroux.
- Vandermeersch, Léon. 1974. "De la tortue à l'achillée." In *Divination et rationalité*, edited by J. P. Vernant, 29–51. Paris: Éditions du Seuil.
- Van der Toorn, Karel. 1995. "Review of Jean Bottéro, *Mesopotamia: Writing, Reasoning, and the Gods*." *Numen* 42: 83–88.
- Van Driel, Govert. 1993. "Neo-Babylonian Sheep and Goats." *Bulletin on Sumerian Agriculture* 7: 219–58.
- Van Soldt, Wilfred H. 1995a. "Babylonian Lexical, Religious and Literary Texts and Scribal Education at Ugarit and Its Implications for the Alphabetic Literary Texts." In *Ugarit: Ein ostmediterranes Kulturzentrum in Alten Orient*, edited by M. Dietrich and O. Loretz, 171–212. Münster: Ugarit-Verlag.
- . 1995b. "Three Tablets from Tell Hammam Et-Turkman." In *Studio Historiae Ardens: Ancient Near Eastern Studies Presented to Philo H.J. Houwink ten Cate on the Occasion of his 65th Birthday*, edited by Theo P.J. Van den Hout and Johan De Roos (PIHANS 74), 275–91. Istanbul: Nederlands Historisch-Archaeologisch Instituut.
- . 2011. "The Role of Babylon in Western Peripheral Education." In *Babylon. Wissenskultur in Orient und Okzident*, edited by Eva Cancik-Kirschbaum et al., 197–211. Berlin and Boston: De Gruyter.
- Vanstiphout, Herman. 1998. "The Twin Tongues: Theory, Technique, and Practice of Bilingualism in Ancient Mesopotamia." In *All Those Nations—: Cultural Encounters within and with the Near East: Studies Presented to Han Drijvers*, edited by H.L.J. Vanstiphout et al., 141–59. Groningen: Styx.
- . 2004. *Epics of Sumerian Kings: The Matter of Aratta*. Atlanta: Society of Biblical Literature.
- Veenhof, Klaas R. 1997–2000. "The Relation between Royal Decrees and Law Collections in the Old Babylonian Period." *Jaarbericht van het Vooraziatisch-Egyptisch Genootschap Ex Oriente Lux* 35/36: 49–83.
- Veldhuis, Niek. 1997. *Elementary Education at Nippur: The Lists of Trees and Wooden Objects*. Unpublished Ph.D. dissertation, University of Groningen. URL: <http://dissertations.ub.rug.nl/faculties/arts/1997/n.c.veldhuis>.
- . 1998a. "TIN.TIR = Babylon, the Question of Canonization and the Production of Meaning." *Journal of Cuneiform Studies* 50: 77–85.
- . 1998b. "Reading the Signs." In *All Those Nations—: Cultural Encounters within and with the Near East: Studies Presented to Han Drijvers*, edited by H.L.J. Vanstiphout et al., 161–74. Groningen: Styx.
- . 1999. "Continuity and Change in the Mesopotamian Lexical Tradition." In *Aspects of Genre and Type in Pre-Modern Literary Cultures*, edited by Bert Roest and Herman Vanstiphout, 101–18. Groningen: Styx.

- Veldhuis, Niek. 2000. "Kassite Exercises: Literary and Lexical Extracts." *Journal of Cuneiform Studies* 52: 67–94.
- . 2004. *Religion, Literature, and Scholarship: The Sumerian Composition "Nanshe and the Birds"* (Cuneiform Monographs 22). Leiden: Brill-Styx.
- . 2006a. "How to Classify Pigs: Old Babylonian and Middle Babylonian Lexical Texts." In *De la domestication au tabou: Le cas des suidés dans le Proche-Orient ancien*, edited by B. Lion and C. Michel (Travaux de la Maison René-Ginouvès 1), 25–29. Paris.
- . 2006b. "Divination: Theory and Use." In *If a Man Builds a Joyful House: Assyriological Studies in Honor of Erle Verdun Leichty*, edited by Ann Guinan et al. (Cuneiform Monographs 31), 487–97. Leiden-Boston: Brill.
- . 2010a. "Guardians of Tradition: Early Dynastic Lexical Texts in Old Babylonian Copies." In *Your Praise is Sweet: A Memorial Volume for Jeremy Black*, edited by Heather D. Baker, Eleanor Robson, and Gábor Zólyomi, 379–400. London: British Institute for the Study of Iraq.
- . 2010b. "The Theory of Knowledge and the Practice of Celestial Divination." In *Divination and Interpretation of Signs in the Ancient World*, edited by Amar Annus (Oriental Institute Seminars 6), 77–91. Chicago: Oriental Institute of the University of Chicago.
- . 2011. "Levels of Literacy." In *The Oxford Handbook of Cuneiform Culture*, edited by Karen Radner and Eleanor Robson, 68–89. Oxford and New York: Oxford University Press.
- . 2012. "Domesticizing Babylonian Scribal Culture in Assyria: Transformation by Preservation." In *Theory and Practice of Knowledge Transfer: Studies in School Education in the Ancient Near East and Beyond*, edited by W.S. Van Egmond and W.H. Van Soldt (PIHANS 121), 11–24. Leiden: Nederlands Instituut voor het Nabije Oosten.
- . 2013. "Purity and Access: A Catalog of Lexical Texts Dedicated to Nabû." *Journal of Cuneiform Studies* 65: 169–80.
- . "Intellectual History and Assyriology." *Journal of Ancient Near Eastern History* 1: 21–36.
- . 2014b. *History of the Cuneiform Lexical Tradition*. (Guides to the Mesopotamian Textual Record 6). Münster: Ugarit Verlag.
- Verderame, Lorenzo. 2002. *Le Tavole I–VI della serie astrologica Enūma Anu Enlil* (Nisaba 2). Rome: Di.Sc.A.M.
- . 2008. "La formazione dell'esperto (*ummānu*) nel period neo-assiro." *Historiae* 5: 51–67.
- Vernant, J. P. 1974. "Paroles et signes muets." In *Divination et rationalité*, edited by J. P. Vernant, 9–25. Paris: Éditions du Seuil.
- Vlassopoulos, Kostas. 2013. *Greeks and Barbarians*. Cambridge: Cambridge University Press.
- Vogelzang, Marianna E., and Herman Vanstiphout, eds. 1992. *Mesopotamian Epic Literature: Oral or Aural?* Lewiston, NY: Edwin Mellen Press.
- von Soden, Wolfram. 1936. "Leistung und Grenze sumerischer und babylonischer Wissenschaft." *Die Welt als Geschichte* 2: 411–64, 509–57.
- . 1960. *Zweisprachigkeit in der geistigen Kultur Babyloniens* (Sitzungsberichte Österreichische Akademie der Wissenschaften. Philosophisch-Historische

- Klasse 235, 1). Vienna: H. Böhlau Nachf., Kommissionsverlag der Österreichischen Akademie der Wissenschaften in Wien.
- . 1969. *Grundriss der akkadischen Grammatik samt Ergänzungsheft zum Grundriss der akkadischen Grammatik* (Analecta Orientalia 33/47). Rome: Pontificium Institutum Biblicum.
- . 1973. *Sprache, Denken und Begriffsbildung im Alten Orient* (Akademie der Wissenschaften und der Literatur, Mainz, Abhandlung der geistes- und sozialwissenschaftlichen Klasse, Jahrgang 1973, Nr. 6). Mainz: Akademie der Wissenschaften und der Literatur.
- von Weiher, Egbert. 1983. *Spätbabylonische Texte aus Uruk*, Teil II (Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk-Warka, Bd. 10). Berlin: Mann.
- . 1988. *Spätbabylonische Texte aus Uruk*, Teil III (Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk-Warka, Bd. 12). Berlin: Mann.
- Waetzoldt, Hartmut. 1972. *Untersuchungen zur neusumerischen Textilindustrie*. Rome: Centro per le antichità e la storia dell'arte del vicino oriente.
- . 1986. "Ein altbabylonischer Schultext und zwei Wirtschaftstexte aus dem Vorderasiatischen Museum." *Altorientalische Forschungen* 13: 309.
- Wagensonner, Klaus. 2010. "Early Lexical Lists Revisited. Structures and Classification as a Mnemonic Device." In *Language in the Ancient Near East*, vol. 1: *Proceedings 53e Rencontre assyriologique internationale, Moscow and St. Petersburg July 2007*, edited by L. Kogan, 285–310. Winona Lake, IN: Eisenbrauns.
- . 2012. "Early Lexical Lists and Their Impact on Economic Records: An Attempt of Correlation between Two Seemingly Different Kinds of Data-Sets." In *Organization, Representation, and Symbols of Power in the Ancient Near East: Proceedings of the 54th Rencontre Assyriologique Internationale at Würzburg, 20–25 July 2008*, edited by Gernot Wilhelm, 805–17. Winona Lake, IN: Eisenbrauns.
- Walcot, P. 1956. "The Text of Hesiod's *Theogony* and the Hittite *Epic of Kumarbi*." *The Classical Quarterly* (New Series) 6: 198–206.
- Warren, Rosanna, and Stephen Scully, trans. 1995. *Euripides, Suppliant Women*. New York: Oxford University Press.
- Waterfield, Robin, trans. 2008. *Plato: Timaeus and Critias*. Oxford World's Classics. Oxford: Oxford University Press.
- Webster, Charles. 2008. *Paracelsus: Medicine, Magic and Mission at the End of Time*. New Haven: Yale University Press.
- Weeden, Mark. 2011. *Hittite Logograms and Hittite Scholarship* (Studien zu den Boğazköy-Texten, Bd. 54). Wiesbaden: Harrassowitz.
- Weidner, Ernst. 1914. "Zwei neue Vokabulare." *Revue d'Assyriologie* 11: 119–29.
- . 1922. *Keilschrifturkunden aus Boghazköi*, vol. 4. Berlin: Staatliche Museen.
- . 1952–53. "Die Bibliothek Tiglatpileser I." *Archiv für Orientforschung* 16: 197–215.
- Weiershäuser, Frauke. 2007. "Beobachtungen zur Entwicklung des Korpus lexikalischer Texte in Assur." In *Studien zur Ritual und Sozialgeschichte im Alten*

- Orient*, edited by Thomas Kämmerer, 349–65. Berlin and New York: Walter de Gruyter.
- Weisberg, David B. 1969–70. “An Old Babylonian Forerunner to *Šumma Ālu*.” *Hebrew Union College Annual* 40–41: 87–104.
- Westbrook, Raymond. 1985. “Biblical and Cuneiform Law Codes.” *Revue Biblique* 92: 247–65.
- . 1988. “The Nature and Origins of the Twelve Tables.” *Zeitschrift der Savigny-Stiftung für Rechtsgeschichte. Romanistische Abteilung* 105: 79–121.
- . 1989. “Cuneiform Law Codes and the Origins of Legislation.” *Zeitschrift für Assyriologie* 79: 201–22.
- . 1994. “What is the Covenant Code?” In *Theory and Method in Biblical and Cuneiform Law*, edited by Bernard M. Levinson, 15–36. Sheffield: Sheffield Academic Press.
- . 1999. “Codex Hammurabi and the Ends of the Earth.” In *Landscapes: Territories, Frontiers and Horizons in the Ancient Near East: Papers Presented to the XLIV Rencontre assyriologique internationale, Venezia, 7–11 July 1997*, edited by Lucio Milano, vol. 3: 101–6. Padua: Sargon.
- Westenholz, Aage. 1993. “The World View of Sargonic Officials: Differences in Mentality Between Sumerians and Akkadians.” *Akkad: The First World Empire*, edited by M. Liverani, 157–70. Padua: Sargon srl.
- . 1999. “The Old Akkadian Period. History and Culture.” In W. Sallaberger and A. Westenholz, *Mesopotamien: Akkade-Zeit und Ur III-Zeit* (*Orbis Biblicus et Orientalis* 160/3), 15–117. Freiburg: Universitätsverlag; Göttingen: Vandenhoeck & Ruprecht.
- . 2007. “The Graeco-Babyloniaca Once Again.” *Zeitschrift für Assyriologie* 97: 262–313.
- Westenholz, Joan Goodnick, and Marcel Sigrist. 2008. “The Measure of Man: The Lexical Series of Ugu-mu.” In *Proceedings of the 51st Rencontre Assyriologique Internationale*, edited by Robert D. Biggs, Jennie Myers, and Martha T. Roth (*Studies in Ancient Oriental Civilization* 62), 221–30. Chicago: The Oriental Institute.
- Wiggermann, F.A.M. 2008. “A Babylonian Scholar in Assur.” In *Studies in Ancient Near Eastern World View and Society Presented to Marten Stol*, edited by R. J. van der Spek, 203–34. Bethesda, MD: CDL Press.
- Wilcke, Claus. 1998. “Care of the Elderly in Mesopotamia in the Third Millennium B.C.” In *The Care of the Elderly in the Ancient Near East*, edited by Marten Stol and Sven P. Vleeming, 23–58. Leiden: Brill.
- . 1999. “Weltuntergang als Anfang: Theologische, anthropologische, politisch-historische und ästhetische Ebenen der Interpretation der Sintflutgeschichte im babylonischen Atramhasis-Epos.” In *Weltende: Beiträge zur Kultur- und Religionswissenschaft*, edited by Adam Jones, 63–112. Wiesbaden: Harrassowitz.
- . 2000. *Wer las und schrieb in Babylonien und Assyrien. Überlegungen zur Literalität im Alten Zweistromland* (SBAW 2000, 6) Munich: Verlag der Bayerischen Akademie der Wissenschaften.
- . 2003. *Early Ancient Near Eastern Law: A History of Its Beginnings—The*

- Early Dynastic and Sargonic Periods* (SBAW 2003, 2). Munich: Verlag der Bayerischen Akademie der Wissenschaften.
- Willetts, Ronald. 1967. *The Law Code of Gortyn*. Berlin: Walter de Gruyter.
- Winitzer, Abraham. 2006. *The Generative Paradigm in Old Babylonian Divination*. Unpublished Ph.D. dissertation, Harvard University.
- . 2011. "Writing and Mesopotamian Divination: The Case of Alternative Interpretation." *Journal of Cuneiform Studies* 63: 77–94.
- . 2013. "A New OB Collection of *Padānum* and Related Omens in Los Angeles." *Zeitschrift für Assyriologie* 103: 162–82.
- Wirth, Gerhard, and Otto Veh, trans. 1992. *Diodoros: Griechische Weltgeschichte Buch I–IX, erster Teil*. Stuttgart: Anton Hierseman.
- Wiseman, D. J. 1953. *The Alalakh Tablets*. London: British Institute of Archaeology at Ankara.
- . 1955. "Assyrian Writing Boards." *Iraq* 17: 3–13.
- Wiseman, D. J., and J. A. Black, 1996. *Literary Texts from the Temple of Nabû* (Cuneiform Texts from Nimrud 4). London: British School of Archaeology in Iraq.
- Wolf, Maryanne. 2007. *Proust and the Squid: The Story and Science of the Reading Brain*. New York: Harper.
- Wormald, Patrick. 1999. *Legal Culture in the Early Medieval West: Law as Text, Image and Experience*. London: Hambledon Press.
- Worthington, Martin. 2005. "Edition of UGU 1 (= BAM 480 etc)." *Journal des Médecines Cunéiformes* 5: 6–43.
- Wright, David P. 2009. *Inventing God's Law: How the Covenant Code of the Bible Used and Revised the Laws of Hammurabi*. Oxford and New York: Oxford University Press.
- Xella, Paolo. 1999. "The Omen Texts." In *Handbook of Ugaritic Studies*, edited by W. Watson and N. Wyatt, 353–58. Leiden: Brill.
- Yamada, Shigeo. 2008. "A Preliminary Report on the Old Babylonian Texts from the Excavation of Tell Taban in the 2005 and 2006 Seasons: The Middle Euphrates and Habur Areas in the Post-Hammurabi Period." *Al-Rafidan* 29: 47–62.
- Yaron, Reuven. 1988. *The Laws of Eshnunna*. Jerusalem: Magnes Press, Hebrew University; Leiden: E. J. Brill.

Index

- Abu Fanduweh (site), 231n21
 Abu Salabikh (site), 55
 acrography, 68–69, 71
 Adad (god), 92, 122, 131, 134, 136–37, 140
 Adad-apla-iddina (king), 105–6
 Adapa (literary character), 13, 137
 Ahiqar (literary character), 204
 Akhetaten (ancient city), 231n21, 251n25
 Akkadian language, 6–7, 12–15, 19, 27, 31, 37–38, 43–45, 47–52, 56–57, 60–61, 63–65, 67–68, 71, 77, 81–82, 98–99, 102, 108, 119, 135–36, 145, 147, 155–56, 158–59, 164, 174, 194–95, 197, 200–202, 205, 214–15, 217–18, 226n20, 248n6, 254n6
 Alalakh (ancient city), 102, 231n21, 239n47
Alamdimmû (scholarly text). *See* physiognomic omens
 Alexander of Macedon (king), 191, 206, 208, 210, 213
 Alexandria (ancient city), 88, 211; library of, 210, 212
 algebra, 191–92
 algorithm, 223
 al-Khalil ibn Ahmad (author), 37
 Amarasinha (author), 37
 Amorite language, 43, 194
 An = *Anu* (scholarly text), 49
Ana ittišu (scholarly text), 48, 54, 71–72, 145, 157–58
 ancestral name, 22, 209
 Anglo-Saxon law codes, 154, 162, 170
 Antioch-on-the-Orontes (ancient city), 210
 Antiochus I (king), 210
 Antiochus III the Great (king), 210
 Anu (god), 20, 29, 102–3, 109–10, 135, 137, 147
 Anzu bird (literary character), 121
 Aphek (ancient city), 47, 231n21
 Aplâ (scholar), 192
 apodosis, 114–19, 121–22, 126, 129–32, 135, 140, 159–61, 188–89, 201, 238n44, 242n4, 243n25, 243n28, 243n30, 248n6
Apollodoros against Neaira (scholarly text), 153
 Aramaic language, 14, 152, 204, 209
 Aristotle, 5, 19, 78, 124, 153, 213
 Asalluḫi (god), 105, 137, 213
 Ashkelon (site), 231n21
 Ashnakkum (ancient city), 230n18
 Assur (ancient city), 18, 46, 48, 50, 54, 57, 62, 90, 104, 107, 109, 132, 147, 149, 178, 199, 202–4, 240n62, 245n59
 Assurbanipal (king), 19, 23–26, 51, 90–92, 96–97, 108, 147, 185, 211, 227n45, 227n47, 247n14; library of, 23–24, 39, 49–50, 94, 96–97, 108–9, 147, 192, 204, 211, 227n46, 228n48, 228n59, 237n31, 240n62
 Assur-uballiṭ I (king), 202
 Assyriology, 12, 40, 217
 astrology, 25, 90, 240n70, 246n85
 astronomical diaries, 110, 191, 210, 251n9
 astronomical omens, 25–26, 92, 97, 102–3, 107–11, 115, 133, 135–38, 192, 240n62, 241n71
 astronomy, 25, 88, 90, 92, 97, 110–12, 115, 138–39, 191, 209, 211–12, 240n70, 246n65

- Ašaredu (scholar), 29
āšīpu. See exorcist
asû. See physician
 Athens (ancient city), 207, 211
 Augustus's *Res gestae*, 177
 authorship, 19–30, 192
- Babylon (ancient city), 4–5, 13, 17, 24,
 29, 45–46, 50–54, 88, 90, 93, 98–100,
 103–6, 109–10, 137, 146–47, 176, 194,
 203, 209–12, 239n56, 246n8, 251n26
 Babylonian cosmopolis, 12, 14–16, 197–
 205, 216
Babylonian Creation Myth (literary text),
 4–11, 81, 115, 136, 174, 188, 192, 210,
 219
Babylonian Diviner's Manual (scholarly
 text), 89, 94, 127, 133, 238n39
Babylonian Epic of Gilgamesh (literary
 text), 13, 18, 21, 25, 27, 201, 228n65,
 252n33
 Bahrain, 231n21
 Bakhtin, Mikhail, 74–75
 Balasī (scholar), 133
 Barthes, Roland, 20, 59, 73
bārû. See haruspex
bārûtu (scholarly text). See extispicy series
 Belet-ekalli (goddess), 136
 Belet-šeri (goddess), 140
 Berossos (scholar), 17, 192, 210–11, 214,
 229n64
 Bible-Babel controversy, 217, 254n2
 biblical law, 143, 150–52, 154–55, 159,
 171, 206
 bilingualism, 7, 12–15, 43, 51, 54, 56–57,
 63, 99, 158, 192, 194–95, 205, 209,
 218, 226n20
 bird augury, 91, 93, 99, 201, 207, 238n41
 birth omens, 90–91, 93–94, 97, 99, 102,
 104, 108, 121–22, 125, 128, 132–33,
 139
Book of Changes (Yijing) (scholarly text),
 113
 Borges, Jorge Luis, 36
 Borsippa (ancient city), 23–24, 50, 52,
 90, 105, 210, 239n59
 Bottéro, Jean, 8, 79, 128, 248n16
- canonicity, 26, 107–8, 221, 228n53
 casuistic law, 159–60
Catalogue of Texts and Authors (scholarly
 text), 20–22
 Chaldeans, 3, 87–88, 111–12, 208
 China, 3, 19, 37, 91, 196
 Cicero, Marcus Tullius, 87
 cognitive processes, 78, 218
 colophon, 21–25, 29, 39, 47–49, 95–96,
 103–6, 108, 146, 150, 175, 203–4
 commentary, 7–9, 49, 51–52, 92, 94–96,
 108, 117–19, 123, 133, 137, 147, 188,
 192
 conceptual autonomy, 216–19, 254n1
 constellation, 4, 87, 122, 136
 Coptic language, 213
 coral metaphor, 223
 cosmogony, 4, 6, 9–10
 cosmology, 9–11, 188
 Covenant Code, 151–52, 155, 171
 Cutha (ancient city), 90
- Dadusha (king), 146, 155, 238n34
 Damkina (goddess), 4, 136
 Dantzig, Charles, 220
 Darwin, Charles, 223
De Divinatione (scholarly text), 87
 Deleuze, Gilles and Guattari, Félix, 223
 Demotic language, 212–13
 Derrida, Jacques, 78–80, 235n61
 Descartes, René, 10, 191
Dictionnaire de la langue française (Émile
 Littré), 78
différance, 78–79
 diglossia, 18
 Dilbat (ancient city), 90
 Diodorus of Sicily, 3, 112, 208
 Diogenes of Babylon, 211–12
 Diogenes Laertius, 186
 Diri (scholarly text), 251n25
 divination reports, 90, 92–93, 104, 110,
 128–35, 137, 172, 241n71, 244n50,
 244n52, 245n59
 dream omens, 102, 104, 108, 201, 207
 Durkheim, Émile, 70
 Dur-Sharrukin (ancient city), 49–50, 107,
 231n28, 240n66

- Ea (god), 4, 17, 21, 105–6, 135–37, 140
Ebla (ancient city), 42–43, 55, 61–62, 68–69, 162, 199
Eco, Umberto, 220
Egypt, 5, 11, 15, 36, 47, 91, 150, 197, 199, 210–13, 231n21, 251n25
Eigenbegrifflichkeit. *See* conceptual autonomy
Ekalte (ancient city), 231n21
Ekur-zakir (scholar), 29, 109, 209
Elamite language, 7, 99, 102, 194
Emar (ancient city), 47–48, 57, 62, 102, 199, 214, 230n18, 231n21, 232n51, 239n47, 251n25, 252n29
Emesal, 62, 230n18
empiricism, 10, 65, 72, 92, 116–17, 128, 163, 189–91, 250n6
Enmeduranki text (scholarly text), 137, 139, 241n73
Enmerkar and the Lord of Aratta (literary text), 14, 74
entextualization, 100–101, 177, 206–7
Enūma Anu Enlil (scholarly text). *See* astronomical omens
Enūma eliš. *See* *Babylonian Creation Myth*
Ephesus (ancient city), 207–8
erimḫuš = *anantu* (scholarly text), 71, 252n31
Erya (scholarly text), 37
Esagil-kin-apli (scholar), 26, 95–96, 104–7, 137, 157, 203–4, 214, 239n59, 241n71
Esarhaddon (king), 23, 25, 97, 134, 192, 204
eš₂-bar-kin_x (scholarly text), 68–69
Eshnunna (ancient city), 100, 196–97; laws of, 145–46, 152, 156–57, 161, 164–68, 173
Etruria, 98
Euripides, 207
exorcist, 20, 24, 89–90, 92, 95–97, 105–6, 109, 136, 192
Exorcist's Manual (scholarly text), 96, 106, 237n28
extispicy, 90, 102, 104, 116, 122, 125, 128–34, 136, 191, 207, 241n73, 245n66
extispicy-prayers, 122, 131, 134
extispicy reports, 109, 128–34
extispicy series (scholarly text), 25–26, 94, 97, 104, 108–9, 114, 117–18, 120, 122, 131–34, 191
Farmer's Instructions, The, 76
Flavius Josephus, 25
Foucault, Michel, 20, 35–36, 126–27, 186, 244n46
Gelb, I. J., 78, 82, 235n59
Germanic law codes, 154, 159–60, 171
Gilgamesh, Enkidu, and the Netherworld (literary text), 13
gloss, 37, 61, 147, 241n71
Goody, Jack, 17, 75–76, 235n58
goring ox, 146, 152, 165, 171
Graeco-Babyloniaca (scholarly texts), 52–53, 209, 214
grammatology, 77–83, 91, 219
Greece, 3–6, 10–12, 16, 36, 77–78, 87–88, 91, 113, 196, 203, 206–8, 211–12
Greek law, 152–55, 170, 176–77, 206–7, 247n25, 252n45
Hammam et-Turkman (site), 46, 230n18
Hammurabi (king), 29, 45, 100, 105–6, 143–44, 175–76, 194; code of, 28, 82, 99, 140, 143–49, 152–53, 155–57, 159–80, 195, 198, 206, 246n8, 252n46
Haradum (ancient city), 238n43
haruspex, 90, 92, 94–96, 129–31, 133–34, 138, 191
Hattic language, 200
Hattusas (ancient city), 29–30, 47, 57, 62–63, 71, 102–3, 199–201, 214, 227n31, 231n21, 232n51, 233n11, 239n47, 239n48, 251n26, 252n30, 252n31
Hazor (ancient city), 231n21
heavenly writing, 89, 91, 134
Hebrew Bible, 25, 27, 152, 154, 217, 228n65
Hegel, G.W.F., 3, 5–6, 143

- hemerology, 94, 133
 hermeneutics, 8–10, 12, 88, 115, 117,
 138, 140, 185, 189, 192, 225n12
 Hesiod, 4–6, 10
 Hittite laws, 150, 155, 168–69
 Hittites, 4, 10, 15, 29, 103, 150, 171,
 194, 200–201, 206–7, 218, 244n50
 Homeric epics, 16, 27, 140, 220
 horoscope, 110–11, 209, 240n68
 House of the Exorcists, 109, 240n67
 Hume, David, 190
 Hurrian language, 7, 46–47, 53, 63, 99,
 102, 188, 194, 200–201, 214
 Huzirina (ancient city), 109, 204,
 231n38, 240n67
 hypertext, 28
- Inanna's Descent to the Netherworld* (literary text), 14
 Indo-European languages, 6, 150, 201,
 218
 inferential reasoning, 91, 113, 116, 121,
 186–87
 internet, 223
 intertextuality, 26–31
Ishtar's Descent to the Netherworld (literary text), 14
 Isin (ancient city), 56, 100, 145
 Isis (goddess), 213
iškar bārūti (scholarly text). *See* series of divination
 Izi (scholarly text), 56–58, 68–69
- Judt, Tony, 77
 Justinian's code, 170–71
- kabbalah, 139
 Kabnak (ancient city), 231n21
 Kabti-ilani-Marduk (author), 21–22
 Kalchas (literary character), 140
 Kalhu (ancient city), 23, 49, 107–8, 204,
 227n46, 231n28, 240n61, 240n66,
 249n28
kalû. *See* lamentation chanter
 Kanesh (ancient city), 46, 178, 231n19
kataduqqû (scholarly text), 97
 King of Justice, 148, 174–75, 177
- Kish (ancient city), 51, 56, 145, 240n62
 Kisurra (ancient city), 56, 232n46
Kitāb al-ʿayn (scholarly text), 37
 ki-ulutin-bi-še₃. *See* *Ana ittišu Kumarbi Cycle* (literary text), 4
- lamentation chanter, 20, 89–92, 96–97,
 110, 192, 227n43
 Landsberger, Benno, 75–76, 216–19,
 230n6, 254n6, 254n10
 Larsa (ancient city), 98–100, 146
 Latin, 16, 36, 154, 170
 Laws of Gortyn, 152–53, 177, 206,
 252n46
 Laws of the Salian Franks, 154
 Linear B, 77
 linguistic determinism, 218–19, 254n6,
 254n10
 linguistic turn, 196
 Lipit-Ishtar (king), 155; laws of, 145, 147,
 156, 159, 161, 167
 Lisia (or Lisin) (goddess), 106, 239n59
Listenwissenschaft, 65, 222
 list of human beings (scholarly text),
 54–58
 list of vessels (scholarly text), 42
 literacy, 10, 16, 44, 82, 178, 194, 225n9,
 225n12, 226n22, 235n58
 liver model, 102–3, 238n34, 239n47,
 242n3
 Lloyd, G.E.R., 66
 logogram, 6, 38, 44, 53, 55–57, 60–64,
 68–69, 71, 77, 82–83, 91, 99, 118–19,
 138, 172, 186, 198, 200, 233n13,
 243n25
 Lu = ša (scholarly text), 19, 49, 56, 69,
 230n9
 Lugalušumgal (governor), 39, 229n5
 Luwian language, 200
 Lycurgus (lawgiver), 154
- ma'at*, 150
malku = šarru (scholarly text), 50, 63, 71,
 117, 242n19
 Manetti, Giovanni, 136
 Marcus Verrius Flaccus (scholar), 36
 Marduk (god), 4–5, 7–12, 19, 24, 28, 51–

- 52, 81, 88, 109, 115, 118–19, 136, 174, 203, 210, 219
- Marduk-šapik-zeri (scholar), 97, 192
- Mari (ancient city), 45, 90, 103, 128–29, 230n18, 238n35
- mathematical astronomy, 88, 92–93, 111, 138–39, 209
- mathematics, 11, 38, 45–46, 111, 190–92, 213, 221, 241n71, 250n6, 250n8
- Mauss, Marcel, 70
- menology, 94
- Meturan (ancient city), 146, 238n34
- Middle Assyrian Laws, 149, 155–57, 160
- Momigliano, Arnaldo, 209
- Moses, 25, 143–44, 151, 175
- MUL.APIN (scholarly text), 92
- Multābiltu* (scholarly text), 94, 117, 123, 242n19
- mur-gud (scholarly text), 49
- Museion, 211
- Nabopolassar (king), 29, 204
- Nabû (god), 23–24, 49–51, 105, 108, 210, 240n66
- Nabû'a (scholar), 245n59
- Nabû-našir (king), 229n64
- Nabû-zuqup-kēna (scholar), 23, 25, 108–9, 229n65
- Nagar (ancient city), 55
- naplastum*. See view
- Napoleonic code, 158, 163, 170
- Nebuchadnezzar II (king), 51, 149, 210
- Neo-Babylonian Laws, 148–49, 155–56, 159, 161–62, 247n14
- Nergal-eṭir (scholar), 93, 236n21
- nigdimdimmu* (scholarly text), 97
- Nineveh (ancient city), 20, 23, 27, 39, 49–50, 90, 107–8, 110, 132, 134, 147, 204–5, 211, 227n46, 228n59, 231n33, 245n59, 247n17
- Ninurta (god), 74–75, 220
- Ninurta-gimilli (scholar), 48
- Nippur (ancient city), 18–19, 38, 44, 46, 48, 50, 54, 56–57, 104, 137, 145, 158, 196, 199, 203, 239n56, 252n28
- Nuzi (ancient city), 57, 103, 231n21, 232n51
- obelisk of Manishtushu, 173, 177, 179
- Oppenheim, A. Leo, 30, 82–83, 228n48, 254n2
- oracle, 25, 91, 136, 140, 201
- orality, 12, 16–19, 27, 113, 152, 178, 226n22, 226n24, 253n49
- orientation tablets, 95
- Paracelsus, 139
- Parthians, 52, 81, 109, 208, 212–13
- Persians, 51–52, 109–11, 147, 150, 153, 208
- Phaedrus*, 78
- Phoenician language, 152
- physician, 90, 92, 96, 166
- physiognomic omens, 95–97, 102, 105–8, 120, 123, 137, 192, 203
- Plato, vii, 11, 78, 87, 153, 175, 196
- Pliny the Elder, 88, 110, 112
- polysemy, 10, 63, 81, 83, 198, 205, 214, 221
- pre-Socratic corpus, 3–5
- prophet, 91, 103
- protasis, 114–19, 121–22, 125–26, 131–32, 140, 159–61, 189, 242n4, 243n25, 243n28, 248n6
- Ptolemaic Egypt, 201–3
- Ptolemy V (king), 212
- Ptolemy's *Almagest*, 88
- Pythagorean Table of Opposites, 124
- qaqqar kitti*, 140
- Qatna (ancient city), 102, 239n47
- Qattara (ancient city), 230n18
- Qurdi-Nergal (scholar), 49, 109
- Rabelais, 74–75, 220
- Republic*, 175
- rhizome, 223
- Ribi-Dagan (scholar), 47–48
- Rim-Sin (king), 100
- Ritual of the Diviner*, 25
- Roman law, 152–55, 247n25
- Rosetta stone, 212
- Sakikkû* (scholarly text), 20, 95–96, 104–5, 111, 137, 214n71

- Samsuiluna (king), 45, 99, 194, 229n66
 Sanskrit, 16, 36, 111, 226n24
 Sapir, Edward, 218
 Sargon II (king), 49, 89, 107, 134, 240n61
šar mišarim. *See* King of Justice
 Sassanid period, 212
 Saussure, Ferdinand de, 59, 78
 schools, 13, 18–19, 38–40, 43, 45–46, 51–53, 56–57, 76–77, 83, 111, 145, 158, 173, 193–95, 197, 211, 227n31, 229n5, 241n71
 Sealand dynasty, 102
 Seleucids, 29, 51–52, 58, 204, 210–13
 self-similarity, 221
 semiology, 78, 219
 Sennacherib (king), 52
 series of divination (scholarly text), 94
 Shaduppum (ancient city), 146
 Shamash (god), 89, 109, 117, 122, 131, 134, 136–37, 139–40, 146, 175, 177, 180, 185, 246n8
 Shangu-Ninurta (scholar), 109
 Shapinuwa (ancient city), 231n21
 Sherlock Holmes, 113
 Shulgi (king), 100
 Shuruppak (ancient city), 55
 Shutruk-Nahhunte (king), 147–48, 168
 sign name, 62
 similitude, 121, 126–27, 132, 136, 186–87, 189, 214, 224, 244n46
 Sîn-lēqe-unninni (author), 21–22, 110, 209, 227n43
 Sippar (ancient city), 17, 51–52, 90, 98–99, 109, 137, 139, 145, 147, 180, 228n59, 236n10, 246n8
šītir šamê. *See* heavenly writing
 Socrates, vii, 11, 78, 186, 196
 Solon, 11, 154
 Standard Professions List (scholarly text), 55, 58, 232n45
 Stoics, 186–87, 189, 211
 Stratonike (queen), 210
 Sumerian language, 6–9, 12–15, 18–19, 27, 31, 37–38, 40–44, 46–47, 49–57, 60–67, 69–72, 75–76, 80–81, 98–99, 118, 135–36, 144–45, 147, 155–56, 158, 166, 172, 188, 194–95, 200, 204–5, 209, 214–15, 218, 226n20, 233n13, 241n71, 245n70, 254n6, 254n10
Šumerisches Lexikon, 233n13
šumma ālu (scholarly text). *See* terrestrial omens
šumma izbu (scholarly text). *See* birth omens
Suppliant Women, 207
 Susa (ancient city), 46, 56, 102–3, 147, 173, 214, 231n19, 239nn47–48
 syllabary, 44, 46, 51–52, 62–63, 71
 Tabatum (ancient city), 230n18
 taxonomy, 35, 65, 222–23
 Tell Yelkhi (site), 238n43
 Ten Commandments, 151, 158
 Terqa (ancient city), 45, 230n18, 244n51
 terrestrial omens, 90, 93, 97, 99, 106, 108–11, 122–23, 132–33, 192, 209, 238n39, 241n71, 243n28, 253n48
 Thales, 5–6, 196
Theaetetus, vii, 11
 Tiglath-Pileser I (king), library of, 48, 104, 203
 Tigonānum (ancient city), 46, 101, 230n18
Timaeus, 11
 Tukulti-Ninurta I (king), 103, 202–3
 Tunip-Teššub (king), 101
ṭupšar Enūma Anu Enlil, 92, 133
ṭupšaru, 92–94, 109
ṭupšarūtū, 192
 Tuttul (ancient city), 230n18
ubi sunt poems, 220
 Ugarit (ancient city), 47, 54, 57, 63, 102, 199, 231n21, 232n51, 233n11, 239n47, 251n25
 Ugaritic language, 47, 63, 99, 102, 214, 233n11
 Ur (ancient city), 43, 51, 56, 69, 98, 100, 145
 Ura = *hubullu* (scholarly text), 40, 48–49, 51–54, 58, 64, 66–69, 72–73
 Ur-Namma (king), laws of, 144–45, 147–

- 48, 156, 159, 161–62, 167, 171, 173, 181
- Uruk (ancient city), 29, 39, 41, 51–52, 54, 56, 70, 88, 90, 109–10, 136, 204, 209, 212, 220, 227n43, 228n59, 231n33, 240n68, 241n71, 253n52
- Verschriftlichung*. See entextualization
- view, 62, 129, 138
- Villon, François, 220
- Vlassopoulos, Kostas, 213
- Von Herder, Johann Gottfried, 218
- Von Humboldt, Wilhelm, 218
- Von Soden, Wolfram, 65, 217–18, 222, 226n20
- West Semitic, 47, 63, 194
- Whorf, Benjamin Lee, 218, 254n10
- Xisouthros (literary character), 17, 19
- Zakir (scholar), 118
- Zeno (scholar), 186–87
- zodiac, 111

